

E & A

10 APR. 1919

ENTOM.

University of Maine

Lent. Baker 97 + 98

Maine Agricultural Experiment Station

ORONO

BULLETIN 270

APRIL, 1918

EASTERN APHIDS A FEW SPECIES OF PROCIPHILUS.

This Bulletin contains a brief account of certain migratory aphids; and Part V of the Aphid Food Plant Catalogue, including plants from the Rose Family to the Parsley Family.

MAINE AGRICULTURAL EXPERIMENT STATION ORONO, MAINE.

THE STATION COUNCIL.

PRESIDENT ROBERT J. ALEY,	<i>President</i>
DIRECTOR CHARLES D. WOODS,	<i>Secretary</i>
FREELAND JONES, Bangor,	} <i>Committee of Board of Trustees</i>
THOMAS V. DOHERTY, Houlton,	
FRANK E. GUERNSEY, Dover,	
JOHN A. ROBERTS,	<i>Commissioner of Agriculture</i>
EUGENE H. LIBBY, Auburn,	<i>State Grange</i>
WILSON W. CONANT, Buckfield,	<i>State Pomological Society</i>
FRANK S. ADAMS, Bowdoinham,	<i>State Dairymen's Association</i>
LEONARD C. HOLSTON, Cornish,	<i>Maine Livestock Breeders' Ass'n.</i>
WILLIAM G. HUNTON, Portland,	<i>Maine Seed Improvement Ass'n.</i>

AND THE HEADS AND ASSOCIATES OF STATION DEPARTMENTS, AND THE
DEAN OF THE COLLEGE OF AGRICULTURE.

THE STATION STAFF.

ADMINIS- TRATION	{	CHARLES D. WOODS, Sc D.	<i>Director</i>
		MARIAN A. COUGLE,	<i>Clerk</i>
		ESTELLE M. GOGGIN,	<i>Clerk</i>
		CHARLES C. INMAN,	<i>Clerk</i>
BIOLOGY	{	FRANK M. SURFACE, Ph. D.,	<i>Biologist*</i>
		JOHN W. GOWEN, Ph. D.,	<i>Assistant</i>
		RAYMOND PEARL, Ph. D.,	<i>Collaborator</i>
		SILVIA PARKER, A. B.,	<i>Assistant</i>
		MILDRED R. COVELL,	<i>Clerk</i>
		HELEN A. RING,	<i>Laboratory Assistant</i>
CHEMISTRY	{	JAMES M. BARTLETT, M. S.,	<i>Chemist</i>
		HERMAN H. HANSON, M. S.,	<i>Chemist*</i>
		ROLAND E. LORD,	<i>Laboratory Assistant</i>
ENTOMOL- OGY	{	EDITH M. PATCH, Ph. D.,	<i>Entomologist</i>
		ALICE W. AVERILL,	<i>Laboratory Assistant</i>
PLANT PATHOLOGY	{	WARNER J. MORSE, Ph. D.,	<i>Pathologist</i>
		†MICHAEL SHAPOVALOV, M. S.,	<i>Assistant</i>
		†GLEN B. RAMSEY, A. M.,	<i>Assistant</i>
		VIOLA L. MORRIS,	<i>Laboratory Assistant</i>
AROOSTOOK FARM	{	JACOB ZINN, Agr. D.,	<i>Assistant Biologist</i>
		C. HARRY WHITE,	<i>Scientific Aid</i>
		JEREMIAH E. SULLIVAN,	<i>Superintendent</i>
HIGHMOOR FARM	{	WELLINGTON SINCLAIR,	<i>Superintendent</i>
		WALTER E. CURTIS,	<i>Scientific Aid</i>
ROYDON L. HAMMOND,		<i>Seed Analyst and Photographer</i>	

* Absent on leave during period of war.

† In collaboration with U. S. Department of Agriculture.

BULLETIN 270

EASTERN APHIDS: A FEW SPECIES OF
PROCIPHILUS.*

EDITH M. PATCH.

There is evidently still considerable work to be done with the migratory Pemphiginae before we have their life histories in hand. Among the single genus *Prociphilus* in the Eastern States alone, several unfinished problems are presented. In fact, the complete American food cycle has been ascertained for but two of the species found in New England,—*P. tessellata*† and *P. venafuscus*.

The second of these, indeed, was not definitely located as to its summer residence until two years ago when the writer secured winged material from pupae collected on the roots of young balsam fir, October 19, 1915 (144-15), though this tree had been under suspicion for several years.‡

P. xylostei, to be sure, has been recorded as a root form on "Fichten" (Tullgren 1909, p. 93) for Europe and its habits in America are not likely to be different.

Besides *P. venafuscus*, we have two ash species in the East, *P. fraxinifolii* and *P. approximatus*, the alternate host of neither having yet been reported.

That the several species already mentioned are all easily to be distinguished, a little study of Figure 5 will show.

*Papers from the Maine Agricultural Experiment Station: Entomology No. 97.

†1908. Entomological News. p. 484.

‡1913. Maine Agricultural Experiment Station, Bulletin 207, p. 448.

Figure 4, however, includes some features that concern problems still unsolved. 164-12 represents the fall migrant of a species found congregating in enormous numbers about the base of a mountain ash tree (*Pyrus* sp) on the University of Maine Campus. This has never been taken by the writer except in 1912. It is apparently *P. fitchii* Baker and Davidson, as it closely resembles the type slide of *P. pyri* (Fitch). In structure it is nearer to *P. venafuscus* than to any other species.

Figure 4 (2-15) shows the antenna of the apterous viviparous female of a root species, common on certain Compositae in Maine, which I have considered to be *Trama erigeronensis*. That this is the root form of a species present in Spring upon other vegetation from which it migrates, seems probable. Individuals with wing pads in the underground colonies are frequently found, which would indicate a return fall migration; but I have only once succeeded in obtaining the mature winged forms, (78-06). The antenna and thoracic waxplates of this collection are given in Figure 4. If I am correct in my determination this fall migrant proves that *erigeronensis* should be withdrawn from *Trama* and placed in the genus *Prociphilus*. This insect comes nearer to *P. corrugatans* migrating from *Crataegus* or *P. alnifoliae* from *Amelanchier* than to any other member of the genus known to me; and it may be discovered that the so called *Trama erigeronensis* is the summer root form of a species migrating from hawthorn or Juneberry. So much variety exists in migrants from these two plants that I am not at present confident that only two species are concerned. I do not yet know what the specific characters are as any I have tried to use for separation of these migrants seem to merge more or less.

This brief paper is written as a report of the present status of this group in the East, in the hope that what slight new data it contains may fit in with information which may be available elsewhere. At any rate, eleven years seems long enough to withhold the winged form of *P. (Trama) erigeronensis* unpublished, in continued hope of linking it definitely into some incomplete cycle.

FOOD PLANT CATALOGUE OF THE APHIDAE OF THE
WORLD.

PART V.*

EDITH M. PATCH.

PITTOSPORACEAE.

PITTOSPORUM.

P. eugenioides A. Cunn. Tarata.*Aphis pomi* DeGeer. Essig, 1917a, p. 341.*Rhopalosiphum persicae* (Sulzer). Essig, 1917a, p. 332.**P. tobira**. Japanese Pittosporum.*Mocrasiphum solanifolii* (Ashmead). Essig, 1917a, p. 329.*Rhopalosiphum persicae* (Sulzer). Essig, 1917a, p. 331.**P. tenuifolium** Gaertn. Tawhiwhi.*Aphis pomi* DeGeer. Essig, 1917a, p. 341.**P. undulatum** Vent. Victorian Box.*Rhopalosiphum persicae* (Sulzer). Essig, 1917a, p. 332.

ROSACEAE. ROSE FAMILY.

ACAENA.

A. splendens Vahl.*Myzus michaelsoni* Schouteden. Schouteden, 1904, p. 3.*Rhopalosiphum acaenae* Schouteden. Schouteden, 1904, p. 4.

AGRIMONIA. Agrimony.

A. eupatoria L.*Nectarophora agrimoniella* Cockerell. Cockerell, 1903a, p. 168.

AMELANCHIER. Juneberry.

A. alnifolia Nutt.*Illinoia macrosiphum* Wilson. Wilson, 1912a, p. 155.*Pemphigus alnifoliae* Williams. Williams, 1910 (1911), p. 7.*Prociphilus corrugatus* (Serrine). Quaintance & Baker, 1917, p. 19.**A. canadensis** (L.) Medic. Shad Bush. Service Berry.*Prociphilus corrugatus* (Serrine). Patch, 1915c, p. 253.

*Papers from the Maine Agricultural Experiment Station: Entomology No. 98.

COTONEASTER.

C. franchetii Bois.

Aphis pomi DeGeer. Essig, 1917a, p. 341.

C. vulgaris.

Aphis pomi DeGeer (mali Fabricius non Oestlund etc.) (oxycanthae Schrank non Koch) (padi Sanderson non Linnaeus) (pyri Kittel non Boyer, Koch etc.), Theobald, 1916a, p. 176.

C. sp.

Aphis pomi DeGeer. (mali Fab.) (aucupariae Buckton) (crataegi Buckton), van der Goot, 1915, p. 210.

CRATAEGUS. Hawthorn.

C. Azarolus L.

Aphis crataegi Kalt. (pyri Koch). Passerini, 1863, p. 35.

Prociphilus corrugatus (Sirrinc). Quaintance & Baker, 1917, p. 19.

C. coccinea L.

Aphis crataegifoliae Fitch. Monell, 1879, p. 21.

Aphis (*Adactynus*) *crataegus-coccinea* Rafinesque. Rafinesque, 1818.

Siphocoryne avenae (Fab.) (mali Fitch) (avenae Fitch) (prunifoliae Fitch) (annuae Oestlund) (fitchii Sanderson) (*Siphonophora avenae* Thos. in part), Pergande, 1904a, p. 8.

Siphonophora crataegi Monell. Monell, 1879, p. 21.

C. crugalli (Lucida).

Aphis mali Fab. (*A. pomi* DeGeer) (*A. oxycanthae* Schrank), Passerini, 1863, p. 40.

Eriosoma lanigera (Hausmann) (*Schizoneura crataegi* Oestlund), Becker 1918a, p. 255.

Pemphigus corrugatus Sirrine. Gillette, 1909a, p. 355.

C. macrocapetra.

Pemphigus corrugatus Sirrine. Gillette, 1909a, p. 355.

C. monogyna.

Aphis pomi DeGeer. (mali Fabricius non Oestlund etc.) (oxycanthae Schrank non Koch) (padi Sanderson non Linnaeus) (pyri Kittel non Boyer, Koch), Theobald, 1916a, p. 176.

C. occidentalis.

Pemphigus corrugatus Sirrine. Gillette, 1909a, p. 355.

C. oxycantha L. English Hawthorn.

Aphis crataegi Kalt. Buckton, 2, p. 37.

Aphis crataegi Kalt. (pyri Koch), Ferrari, 1872, p. 62.

Aphis crataegi Kalt. (non Koch) (non Buckton), Theobald, 1911-1912.

Aphis crataegi Koch. Koch, p. 64.

Aphis crataegiella Theobald. (crataegi Buckton non Kaltenbach), Theobald, 1911-1912.

Aphis crataegifoliae Fitch. Davidson, 1910, p. 377.

Aphis mali Fab. (*A. pomi* DeGeer) (*A. oxyacanthae* Schrank), Passerini, 1863, p. 40.

Aphis mali Fab. (*Puceron du pomier* Gotze) (*pomi* DeGeer) Buckton, 2, p. 46.

Aphis oxyacanthae Koch. Buckton, 2, p. 37.

Aphis pomi DeGeer. (*mali* Fabricius non Oestlund etc.) (*oxyacanthae* Schrank non Koch) (*padi* Sanderson non Linnaeus) (*pyri* Kittel non Boyer, Koch), Theobald, 1916a, p. 176.

Aphis rumicis L. (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistae* Scopoli), van der Goot, 1915, p. 224.

Dentatus (*Aphis*) *crataegi* Kalt. (*pyri* Boyer) (*ranunculi* Kalt.) van der Goot, 1915, p. 176.

Macrosiphum crataegaria (Walker) (non Buckton). Theobald, 1913, Jour. Econ. Biol., Vol. 8, p. 53.

Ovatus (*Myzus*) *mespili* van der Goot. van der Goot, 1915, p. 138.

Prociphilus crataegi Tull. Tullgren, 1909, p. 102.

Siphonaphis padi L. (*avenae* Fab.) van der Goot, 1915, p. 244.

Tetraneura ulmi Geoffrey. (*Aphis*). Ferrari, 1872, p. 83.

Myzus oxyacanthae (Koch). Bayer, 1914a, p. 142.

C. punctata Jacq.

Aphis crataegifoliae Fitch. Thomas, 1879, p. 101.

Schizoneura crataegi Oestlund. Oestlund, 1887, p. 28.

C. tomentosus L.

Aphis crataegifoliae Fitch. Sanborn, 1904, p. 53.

Schizoneura crataegi Oestlund. Williams, 1910, p. 20.

C. sp.

Aphis avenae (Fab.). Patch, 1915c, p. 256.

Aphis bakeri Cowen. (*cephalicola* Cowen). Gillette and Taylor, 1908, p. 28.

Aphis brevis Sanderson. Patch, 1915c, p. 257.

Aphis crataegifoliae Fitch. Quaintance and Baker, 1917, p. 18.

Aphis edentula Buckton. Buckton, 2, p. 41.

Aphis marutae Oestlund. Hunter, 1901, p. 101.

Pemphigus corrugatans Serrine. Jackson, 1908, p. 216.

Schizoneura lanigera Hausmann (*S. americana* in part, of authors) Patch, 1912a, p. 395.

CRATAEGO-MESPILUS. (hybrid).

C.-Mespilus.

Aphis crataegi Buckton. Lingelsheim, 1916a.

Myzus oxyacanthae Koch. Lingelsheim, 1916a.

DUCHESNEA. Indian Strawberry.

D. indica (And). Focke (*Fragaria indica*).

Aphis gossypii Glover. (*citrifolii* Ashm. In part) (*citrulli* Ashm.) (*cucumeris* Forbes) (*forbesi* Weed?), Pergande, 1895, p. 314.

ERIOBOTRYA.

E. japonica Lindl.

Aphis eriototryae Schouteden. Schouteden, 1905a, p. 165.

FILIPENDULA.

F. ulmaria (L.). Maxim (*Ulmarm ulmaria* L.) (*Spiraea ulmaria*) (Spir-la by misprint) Queen of the Meadow.

Aphis spiraeella Schouteden. (schoutedeni Kirkaldy) (spireae Schouteden nec Oestlund) Schouteden, 1906a, p. 228.

Siphonophora pisi Kalt. Buckton, 1, p. 135.

Siphonophora ulmariae (Schrank, Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch), Passerini, 1863, p. 13.

FRAGARIA. Strawberry.

F. indica. See *Duchesnea indica*.**F. vesca** L.

Aphis chloris Koch. Passerini, 1863, p. 39.

Aphis fragariae Walker. Walker, 1848b, p. 431.

Rhizobius sonchi Pass. Kaltenbach, 1874, p. 484.

Siphonophora fragariae Koch. Buckton, 1, p. 126.

F. virginiana Duchne.

Aphis sp. Sanborn, 1904, p. 63.

Myzus porosus Sanderson. Patch, 1915c, p. 258.

F. sp.

Aphis aparines Fab. Williams, 1891, p. 24.

Aphis forbesi Weed. Weed, 1888, p. 273.

Aphis fragariae Koch. Kaltenbach, 1874, p. 231.

Aphis gossypii Glover. (citrifolii Ashm. in part) (citrulli Ashm.) (cucumeris Forbes) (forbesi Weed?), Pergande, 1895, p. 314.

Aphis maidiradicis Forbes. Vickery, 1910, p. 111.

Macrosiphum fragariellum Theobald. (S. fragariella), Cockerell, 1905, p. 309; Theobald, 1913, Jour. Econ. Biol. Vol. 8, p. 53.

Macrosiphum rogersii Theobald. Theobald, 1913, Jour. Econ. Biol. Vol. 8, p. 53.

Macrosiphum trifolii Pergande. Pergande, 1904a, p. 22.

Myzus fragaefolii Cockerell. Cockerell, 1901a, p. 101.

Myzus fragariae Theobald. Theobald, 1912.

Myzus porosus Sanderson. Sanderson, 1900, p. 205.

Siphonophora fragariae var. *immaculata* Riley. Pergande, 1904a, p. 22.

Siphonophora minor Forbes. Forbes, 1884, p. 79.

GEUM. Avens.

G. urbanum L.

Macrosiphum gei Koch. Theobald, 1913, p. 53.

Macrosiphum ulmariae (Schrank) (gei Koch) (urticae Kalt?) van der Goot, 1915, p. 104.

Siphonophora ulmariae (Schrank) (onobrychis Boyer) (pisi Kalt.)
(gei Koch). Ferrari, 1872, p. 55.

MESPILUS.

M. germanica.

Aphis pomi DeGeer. Lingelsheim, 1916a.

Aphis fitchii Sanderson. Lingelsheim, 1916a.

NUTTALLIA. (Osmaronia).

N. cerasiformis Torr-Gray.

Illinoia osmaroniae Wilson. Wilson, 1912a, p. 153.

PHOTINIA.

P. arbutifolia Lindl.

Rhopalosiphum nervatum Gillette (arbuti Davidson). Essig, 1917,
p. 330.

P. serrulata Lindl. (Crataegus glabra).

Myzus cerasi Fab. Macchiati, 1883, p. 234.

PHYSOCARPUS. (Neillia) (Opulaster). Nine-bark.

P. opulifolius (L). Maxim. (Neillia opulifolius).

Aphis neilliae Oestlund. Oestlund, 1887, p. 59.

POTENTILLA. (Tormentilla). Cinquefoil.

P. Anserina L. Silver Weed.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

Macrosiphum potentillae (Aphis Walker). Theobald, 1913, p. 150.

Myzus rosarum (Walker) (potentillae Oestlund). Oestlund, 1887,
p. 73.

Nectarophora potentillae Oestlund. Oestlund, 1887, p. 83.

Phorodon galeopsidis (Kalt.) Pass. (Walker ex parte). Passeri-
ni, 1863, p. 19.

P. arguta Pursh.

Myzus potentillae Williams. Williams, 1910 (1911), p. 66.

P. hippiana Lehm. (pulcherrima).

Nectarophora martini Cockerell. Cockerell, 1903a, p. 171. (pul-
cherrima?).

P. reptans L.

Phorodon galeopsidis Kalt. Macchiati, 1883, p. 232.

P. tormentilla Scop.

Aphis tormentillae Pass. Del Guercio, 1909, (1910), Redia VII,
p. 297.

PRUNUS. (Amygdalus) (Cerasus) (Padus) (Persica). Plum. Cherry.

P. americana Marsh. Wild Plum.

Aphis cerasi Schrank. (A. prunicola Kalt.) Lingelsheim, 1916a.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

- P. Amygdalus** Baill. (*Amygdalus communis* L.) Almond.
Aphis amygdali Blanch. Thomas, 1879, p. 102.
Aphis amygdalinus Schouteden. Schouteden, 1905a, p. 164.
Lachnus fuliginosus Buckton. Buckton, 1891, p. 41.
Rhopalosiphum nymphaeae (Linn.). Davidson, 1917a, p. 350.
- P. armeniaca** L. Apricot.
Aphis persicariae Hartig. Hartig, 1841, p. 370.
Aphis pruni Reaum. (*prunifoliae* Fitch?) (*Prunifex* Amyot) (*Calamaphis* Amyot). Buckton, 2, p. 65.
Aphis prunorum Dobrowljansky. Dobrowljansky, 1913, p. 45.
Hyalopterus arundinis Fabr. Clarke, 1903, p. 249.
Hyalopterus pruni (Fab.) Koch (*Prunifex* Amyot). Buckton, 2, p. 111.
Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.
Rhopalosiphum nymphaeae (Linn.). Davidson, 1917a, p. 350.
- P. avium** L. Sweet Cherry. Mazzard.
Aphis cerasina Walker. Kaltenbach. 1874, p. 177.
Myzus cerasi (Fab.) Pass. Passerini, 1863, p. 22.
- P. cerasus** L. (*Cerasus vulgaris*). Sour or Morello Cherry.
Myzus cerasi Fab. Gillette and Taylor, 1908, p. 43.
Myzus cerasi (Fab.) Pass. (*Cerasaphis* Amyot). Buckton, 1, p. 175.
Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.
- P. chamaerasus** Jacq.
Aphis insititiae Koch. Cholodkovsky, 1910, p. 146.
- P. domestica** L. Common Garden Plum.
Aphis alamedensis Clarke. Clarke, 1903, p. 251.
Aphis convecta Walker. Walker, 1849c, p. 37.
Aphis deposita Walker. Walker, 1848c, p. 2250.
Aphis detracta Walker. Walker, 1849c, p. 38.
Aphis egressa Walker. Walker, 1849c, p. 38.
Aphis humuli Schrank. (*A. pruni* Scop.) Koch, p. 115.
Aphis internata Walker. Walker, 1849c, p. 37.
Aphis persorbens Walker. Walker, 1849c, p. 37.
Aphis pruni Fab. Kaltenbach, 1874, p. 176.
Aphis pruni Koch. (*Aphis cardui* Linn.) Dobrowljansky, 1913, p. 45.
Aphis prunicola Kalt. Passerini Flora.
Aphis prunina Walker. Passerini, 1863, p. 37; Walker, 1848c, p. 2250.
Aphis setariae Thomas. Quaintance and Baker, 1917, p. 19.
Aphis similis Walker. Walker, 1848c, p. 2249.
Aphis transposita Walker. Walker, 1849c, p. 37.
Aphis sp. Quaintance and Baker, 1917, p. 19.
Myzus persicae Sulzer. Gillette and Taylor, 1917, p. 36.
- P. insititia** L. Bullace Plum.
Anuraphis prunicola Kaltenbach. Del Guercio, 1909 (1910), p. 297.

Aphis insititiae Koch. Kaltenbach, 1874, p. 177.

Brachycaudus helichrysi Kalt. (*myosotidis* Koch) (*pruni* Koch). van der Goot, 1915, p. 257.

Phorodon humuli Schrank. (*A. pruni* Scop.). van der Goot, 1915, p. 134.

P. Mahaleb L. Perfumed Cherry.

Aphis frangulae Kalt. (*A. rhammi* Kalt. *not* Boyer). Koch, p. 120.

Myzus cerasi Fab. (*Aphis*). Ferrari, 1872, p. 61.

Myzus mahaleb (Koch) Pass. (*A. pruni mahaleb* Boyer) (*A. humuli* Walker *partim*?).

Phorodon pruni "n. sp?" Ferrari. (*A. humuli* Koch *partim*). Ferrari, 1872, p. 60.

P. melanocarpa.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

P. mume.

Macrosiphum mumecola Matsumura. Matsumura, 1917a, p. 361.

P. padi L.

Aphis padi Reaum. Buckton, 2, p. 62.

Aphis padi L. Kaltenbach, 1874, p. 176.

Aphis padi Kalt. (*A. avenae* Fab. Kalt.). Mordwilko, 1897, p. 282.

Lachnus padi Hartig. Hartig, 1841, p. 368.

Siphonaphis padi Linn. (*A. avenae* Fab.). van der Goot, 1915, p. 244.

P. pennsylvanica L. Wild Red, Bird, Fire or Pin Cherry.

Aphis cerasifoliae Fitch. Gillette, 1910, p. 405.

P. persica (L.) Stokes. (*Persica vulgaris*) (*Amygdalus persica*). Peach.

Abura momocola Matsumura. Matsumura, 1917a, p. 363.

Aphis amygdali Boyer. (*persicae* Boyer). Buckton, 2, p. 105.

Aphis amygdalinus Schouteden. Theobald, 1909, p. 324.

Aphis persicae Koch. (*persicae* Boyer? *persicae* Kalt?). Koch, pp. 61 and 62.

Aphis infuscata Koch. van der Goot, 1915, p. 205.

Aphis persicae Kalt. Kaltenbach, 1843, p. 93.

Aphis persicae Boyer. (*insititiae* Koch). Ferrari, 1872, p. 73.

Aphis persicae-niger Smith. Gillette and Taylor, 1908, p. 37.

Aphis persicariae Hartig. Hartig, 1841, p. 370.

Aphis persicophila Rondani. Passerini, 1860, p. 36.

Aphis pruni Reaum. (*prunifoliae* Fitch?) (*prunifex* Amyot) (*Calamaphis* Amyot). Buckton, 2, p. 65.

Aphis prunicola Kalt. (*cerasi* Schrank). Ferrari, 1872, p. 74.

Aphis scotti Sanderson. Smith, 1905, p. 99.

Aphis setariae Thom. Quaintance and Baker, 1917, p. 19.

Brachycaudus amygdali Buckton. (*A. persicae* Fonsc.) (*cerasi* Schrank) (*prunicola* Kalt.). van der Goot, 1915, p. 253.

Dryobius amygdali van der Goot. van der Goot, 1912, p. 282.

Hyalopterus pruni (Fab.) Koch. (*Prunifex* Amyot). Buckton, 2, p. 111.

Lachnus fuliginosus Buckton. Buckton, 1891, p. 41.

Lachnus (*Pterochloris*) *persicae* Chol. Cholodkovsky, 1908, p. 688.

Myzus momonis Matsumura. Matsumura, 1917a, p. 362.

Myzus (*Aphis*) *persicae* Pass. Kaltenbach, 1874, p. 151.

Myzus persicae Pass. Passerini, 1863, p. 25.

Myzus persicae (Sulzer). (*insititia* Koch) (*persicaecola* Boisduval) (*persicophila* Rondani). Buckton, 1, p. 180.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

Myzus varians Davidson. Essig, 1917a, p. 335.

Rhopalosiphum dianthi (Schrank) Koch (*persicae* Puceron du pecher Morren) (*rapae* Curtis) (*A. floris rapae* Curtis) (*dubia*? Curtis) (*vastator* Smee) (*persicaecola* Boisduval) (*R. persicae* Pass.) Buckton, 2, p. 17.

Rhopalosiphum nymphaeae (Linn.) Davidson, 1917a, p. 350.

Rhopalosiphum persicae (Sulzer) Pass. (*A. dianthi* Schrank) (*A. vulgaris* Kyber) (*A. rapae* Curtis) (*A. dubia* Curtis) (*A. vastator* Smee). Passerini, 1863, p. 21.

P. pseudo-cerasus.

Myzus sasaki Matsumura. Matsumura, 1917a, p. 362.

P. sachalinensis.

Myzus sakurae Matsumura. Matsumura, 1917a, p. 362.

P. serotina Ehrh. (*Cerasus serotina*) Wild Black or Plum Cherry.

Aphis cerasicolens Fitch. Williams, 1891, p. 7.

Siphocoryne avenae (Fab.) (*mali* Fitch) (*prunifoliae* Fitch) (*avenae* Fitch) (*annuae* Oestlund) (*fitchii* Sanderson) (*Siphonophora avenae* Thos. in part). Pergande, 1904a, p. 8.

P. spinosa L.

Aphis amygdali Boyer. (*persicae* Boyer). Buckton, 2, p. 105.

Aphis bellula Walker. Walker, 1849c, p. 36.

Aphis cerasina Walker. Kaltenbach, 1874, p. 177.

Aphis consona Walker. Walker, 1849c, p. 36.

Aphis conviva Walker. Walker, 1849c, p. 36.

Aphis humuli Schrank. (*A. pruni* Scop.). Koch, p. 115.

Aphis impacta Walker. Walker, 1849c, p. 35.

Aphis infuscata Koch. Koch, p. 77.

Aphis nociva Walker. Walker, 1849c, p. 36.

Aphis persicae Boyer. Passerini Flora.

Aphis prunaria Walker. Walker, 1850b, p. 121.

Aphis prunicola Kalt. (*A. cerasi* Schrank), Passerini, 1863, p. 50.

Aphis prunina Walker. Walker, 1850b, p. 150.

Aphis spinarum Hartig. Hartig, 1841, p. 370.

Aphis transmuteda Walker. Walker, 1849c, p. 37.

Brachycaudus amygdali Buckton. (*A. persicae* Fonsc.) (*A. cerasi* Schrank) (*A. prunicola* Kalt.), van der Goot, 1915, p. 253.

Hyalopterus pruni (Fab.) Koch. (Prunifex Amyot). Buckton, 2, p. 111.

Phorodon humuli (Schränk) Pass. (pruni Scop.) (Humulifex Amyot) Buckton, 1, p. 167.

Phorodon humuli var. *mahaleb* Boyer. (A. pruni Boyer) (A. mahaleb Koch) (M. mahaleb Pass.) Buckton, 1, p. 169.

Schizoneura corni Kalt. (S. vagans Koch) "auf Schlehenhecken," Koch, pp. 269 and 330. (September migration).

P. virginiana L. (*Cerasus serotina*). Choke cherry.

Aphis cerasicolens Fitch. Hunter, 1901, p. 95.

Aphis cerasifoliae Fitch. (*Myzus cerasifoliae* Thomas). Thomas, 1879, p. 93.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

Siphocoryne avenae (Fab.) (mali Fitch) (prunifoliae Fitch) (avenae Fitch) (annuae Oestl.) (fitchii Sanderson) (*Siphonophora avenae* Thos. in part). Pergande, 1904a, p. 8.

P. sp.

Aphis padi Linn. (avenae of European authors). Baker, 1917h.

Aphis prunicolens Ashmead. Hunter, 1901, p. 102.

Aphis prunifoliae Fitch (avenae of American authors, *not padi*) Baker, 1917h.

Aphis pruni-mahaleb Boyer. Lichtenstein Flore Supplement.

Aphis setariae Thomas. Gillette and Taylor, 1908, p. 41.

Chaitophorus populi (Linn.). Pass. (*Myzaegirus* Amyot) (*Architaphis populi* Walker). Buckton, 2, p. 142.

Hyalopterus arundinis (Fab.) (A. pruni Fab.) (A. phragmitidicola Oestlund) (A. prunifoliae Fitch?). Hunter, 1901, p. 92.

Hyalopterus arundinis (Fab.) (pruni). Gillette and Taylor, 1908, p. 39.

Myzus mahaleb Fonsc. Pergande, 1897, Bul. 7, Div. Ent.

Myzus prunifoliae Fitch. Sanborn, 1904, p. 70.

Nectarophora prunicola Ashmead. Hunter, 1901, p. 116.

Phorodon humuli Schrank. Gillette and Taylor, 1908, p. 40.

Rhopalosiphum dubium Curtis. Lichtenstein La Flore.

Rhopalosiphum persicae Sulzer. Lichtenstein La Flore.

Rhopalosiphum persicaecola Boisduval. Lichtenstein La Flore.

Rhopalosiphum vastator Smee. Lichtenstein La Flore.

Rhopalosiphum vulgaris Kyber. Lichtenstein La Flore.

PYRUS. (*Cydonia*) (*Malus*) (*Mespilus*) (*Sorbus*).

P. americana (Marsh) D. C. (*Sorbus americana*) American Mountain Ash.

Aphis mali Fab. (A. malifoliae Fitch) Oestlund, 1887, p. 64.

Schizoneura lanigera Hausmann (S. americana in part of authors) Patch, 1912a, p. 395.

P. aucuparia (L.) Ehrh. European Mountain Ash. Rowan Tree.

Aphis aucupariae Buckton. Buckton, 2, p. 76.

- Aphis pomi* DeGeer. (mali Fab.) (aucupariae Buckton) (crataegi Buckton). van der Goot, 1915, p. 213.
- Aphis pomi* DeGeer. (mali Fabricius non Oestlund etc.) (oxyacanthae Schrank non Koch) (padi Sanderson non Linnaeus) (pyri Kittel non Boyer, Koch). Theobald, 1916a, p. 176.
- Aphis sorbi* Kalt. Kaltenbach, 1874, p. 216.
- Siphocoryne padi* L. (A. avenae Fab.) van der Goot, 1915, p. 244.
- P. communis** L. (pyraeter). Pear.
- Aphanostigma (Phylloxera) piri* (Chol.) C. B. Borner, 1909b, p. 61. Cholodkovsky, 1910, p. 149.
- Aphis crataegi* Kalt. (pyri Koch). Passerini, 1863, p. 35.
- Aphis crataegi* Kaltenbach non Buckton. Theobald, 1916, p. 212.
- Aphis gossypii* Glover. (citrifolii Ashmead in part) (citrulli Ashmead) (cucumeris Forbes) (forbesi Weed?) Pergande, 1895, p. 314.
- Aphis kochii* Schouteden (pyri Koch non Boyer) (sorbi Walker, Sanderson etc. non Kaltenbach) (mali Buckton part, non Fabricius) (pyri-mali Fabricius part) (malifoliae Fitch and Thomas) (mali Ferrari part) (pyri Gillette and Taylor). Theobald, 1916b, p. 205.
- Aphis lentiginis* Buckton. Buckton, 2, p. 60.
- Aphis mali* Fab. (Puceron du pomier Gotze) (pomi DeGeer). Buckton, 2, p. 46.
- Aphis oxyacanthae* Koch non Schrank. Bayer, 1909b, p. 35.
- Aphis pyri* Koch. Bayer, 1909b, p. 35.
- Aphis pomi* DeGeer. (mali Fab.) (aucupariae Buckton) (crataegi Buckton). van der Goot, 1915, p. 210.
- Aphis pomi* DeGeer. (mali Fabricius) (pyri Kittel non Boyer, Koch) (padi Sanderson non Linnaeus) (oxyacanthae Schrank). Theobald, 1916a, p. 176.
- Aphis pyraria* Pass. Buckton, 2, p. 54.
- Aphis pyrastris* Boisduval. Passerini Flora.
- Aphis pyri* Goureaux. Passerini Flora.
- Aphis rumicis* L. (evonymi Fab.) (papaveris Fab.) (atriplicis Fab.) (genistae Scopoli). van der Goot, 1915, p. 225.
- Eriosoma lanuginosa* Hartig. (pyri Goethe) Baker and Davidson, 1917c, p. 66.
- Eriosoma pyricola* Baker and Davidson. Baker and Davidson, 1916e, p. 351.
- Lachnus pyri* Buckton. Buckton, 1899a, p. 274.
- Myzoxylus laniger* (Hausmann). Bayer, 1909b, p. 34.
- Myzus oxyacanthae* (Koch) Pass. Passerini, 1863, p. 24.
- Myzus persicae* Sulzer. Gillette and Taylor, 1908, p. 36.
- Myzus pyrarius* Pass. Passerini, 1862, p. 2.
- Myzus pyrinus* Ferrari. Zoological Record, 1872, p. 418.
- Nectarophora tabaci* Pergande. Pergande, 1898, p. 300.
- Prociphilus corrugatans* Serrine. Quaintance and Baker, 1917, p. 19.

Prociphilus fitchii Baker and Davidson. (pyri Fitch). Baker and Davidson, 1917c, p. 66.

Schizoneura piri Mordwilko. Cholodkovsky, 1910, p. 148.

Siphocoryne avenae (Fab.) (mali Fitch) (avenae Fitch) (prunifoliae Fitch) (annuae Oestl.) (fitchii Sanderson) (Siphonophora avenae Thomas in part). Pergande, 1904a, p. 8.

P. (Malus) coronaria L. American Crab.

Aphis gossypii Glover. Gillette, 1910, p. 404.

P. Cydonia L. (Cydonia vulgaris). Quince-tree.

Aphis brevis Sanderson. Sanderson, 1901b, p. 157.

Aphis crataegifoliae Fitch. Quaintance and Baker, 1917, p. 18.

Aphis cydoniae Boisduval. Zoological Record, 1868, p. 416.

Aphis mali Fab. (A. pomi DeGeer) (A. oxyacanthae Schrank). Passerini, 1863, p. 40.

Aphis pomi DeGeer. (mali Fab.) (aucupariae Buckton) (crataegi Buckton) van der Goot, 1915, p. 210.

Macrosiphum solani (Kalt.) Del Guercio 1909 (1910), Redia VII, p. 297.

Prociphilus corrugatans Sirrine. Quaintance and Baker, 1917, p. 19.

Siphocoryne avenae (Fab.) (mali Fitch) (prunifoliae Fitch) (avenae Fitch) (annuae Oestl.) (fitchii Sanderson) (Siphonophora avenae Thos. in part). Pergande, 1904a, p. 8.

Siphonophora (Aphis) solani Kalt. Passerini, 1863, p. 13.

P. germanica Hook. (Mespilus germanica).

Aphis assidua Walker. Walker, 1849c, p. 40.

Aphis inserta Walker. Walker, 1849c, p. 39.

Aphis insita Walker No. 1. Walker, 1849c, p. 39.

Aphis mactata Walker. Walker, 1849c, p. 39.

Aphis nutricata Walker. Walker, 1849c, p. 39.

Aphis pomi DeGeer. (mali Fabricius non Oestlund) (oxyacanthae Schrank non Koch) (padi Sanderson non Linnaeus) (pyri Kittel non Boyer, Koch etc.). Theobald, 1916a, p. 176.

Aphis pruni Reaum. (prunifoliae Fitch?) (Prunifex Amyot) (Calamaphis Amyot). Buckton, 2, p. 65.

Macrosiphum pelargonii Buckton. Theobald, 1913, p. 54.

Ovatus (Myzus) mespili van der Goot. van der Goot, 1915, p. 138.

Siphonaphis padi L. (avenae Fab.) van der Goot, 1915, p. 244.

Siphonophora pelargonii (Kalt.) Koch (pallida Walker) (fragariae Walker?) (diplanteriae Koch?) (malvae Pass.) Buckton, 1, p. 137.

P. japonica Thunb. (Cydonia japonica).

Aphis mali Fab. (A. pomi DeGeer) (A. oxyacanthae Schrank). Passerini, 1863, p. 40.

P. malus L. (paradisiaca). Apple.

Aphis (Siphocoryne) avenae Fab. Gillette and Taylor, 1908, p. 30.

- Aphis bakeri* Cowen (cephalicola Cowen). Gillette and Taylor, 1908, p. 28.
- Aphis bivincta* Fitch (var. of mali). Fitch, 1855, p. 760.
- Aphis brevis* Sanderson. Sanderson, 1901b, p. 157. ("Accidental?").
- Aphis crataegi* Kalt. (pyri Koch). Passerini, 1863, p. 35. Lustner 1911.
- Aphis crataegi* Kaltenbach. (non Buckton). Theobald, 1916a, p. 171.
- Aphis devector* Walker. Walker, 1849c, p. 38.
- Aphis fulviventris* Fitch. (var. of mali). Fitch, 1855, p. 760.
- Aphis immaculata* Fitch (var. of mali). Fitch, 1855, p. 760.
- Aphis kochi* Schouteden. (pyri Koch non Boyer) (pyri-mali Fabricius part) (mali Buckton part) (sorbi Walker part Sanderson, Theobald, non Kaltenbach) (Myzus mali Ferrari part) (malifoliae Fitch). Theobald, 1916a, p. 170.
- Aphis lanata* Salisbury. Hagen, 1863, p. 103.
- Aphis mali* Fab. (A. pyri Reaum.) Thomas, 1878, p. 11.
- Aphis mali* Fab. (A. pomi DeGeer) (A. oxyacanthae Schrank). Passerini, 1863, p. 40.
- Aphis mali* Fab. (Puceron du pomier Gotze) (pomi DeGeer). Buckton, 2, p. 46.
- Aphis mali* Fab. (A. malifoliae Fitch). Oestlund, 1887, p. 64.
- Aphis malifoliae* Fitch (the sorbi Kalt. of American authors). Baker and Turner, 1916f, p. 11.
- Aphis medicaginis* Koch. Gillette and Taylor, 1908, p. 32.
- Aphis nigra* Theobald. (oxyacanthae Koch non Schrank). Theobald, 1916a, p. 171.
- Aphis nigricollis* Fitch (var. of mali). Fitch, 1855, p. 760.
- Aphis nigricentris* Fitch (var. of mali). Fitch, 1855, p. 760.
- Aphis obsoleta* Fitch (var. of mali). Fitch, 1855, p. 760.
- Aphis pallidicornis* (var. of mali). Fitch, 1855, p. 759.
- Aphis pomi* DeGeer. Gillette and Taylor, 1908, p. 23.
- Aphis pomi* DeGeer. (mali Fab.) (aucupariae Buckton) (crataegi Buckton). van der Goot, 1915, p. 213.
- Aphis pomi* DeGeer (mali Fabricius) (pyri Kittel non Boyer, Koch) (padi Sanderson, non Linnaeus) (oxyacanthae Schrank). Theobald, 1916a, p. 170.
- Aphis pruni* Reaum. (prunifoliae Fitch?) (Prunifex Amyot) (Calamaphis Amyot) Buckton, 2, p. 65.
- Aphis pyri* Boyer (sorbi Sanderson) (malifolii Fitch). Gillette and Taylor, 1908, p. 32.
- Aphis pyri* Boyer (crataegi Kalt.) (A. discrepans Koch). Koch, p. 109.
- Aphis pyri* Hartig. Hartig, 1841, p. 369.
- Aphis rumicis* Linnaeus (papaveris Fabricius) (thlaspeos Schrank) (fabae Scopoli) (atriplicis Fabricius) (aparines Schrank) (ar-

mata Hausmann) (dahliae Mosley) (evonymi Fabricius) (ulicis Fabricius). Theobald, 1916a, p. 171.

Aphis sorbi Kalt. Gillette, 1910, p. 404.

Aphis tergata Fitch (var. of mali). Fitch, 1855, p. 760.

Aphis thoracica Fitch (var. of mali). Fitch, 1855, p. 760.

Aphis triseriata Fitch (var. of mali). Fitch, 1855, p. 760.

Callipterus mucidus Fitch. Hunter, 1901, p. 90. Fitch, 1859, p. 334. "A solitary plant-louse."

Hyalopterus pruni Fab. Del Guercio, 1909 (1910), Redia VII, p. 297.

Macrosiphum solanifolii Ashmead. Patch, 1915e, p. 214.

Myzus mali Ferrari. Zoological Record, 1872, p. 418.

Myzus oxyacanthae (Koch) Pass. Passerini, 1863, p. 24. Theobald, 1911-12.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 32.

Nectarophora tabaci Pergande. Pergande, 1898, p. 300.

Pemphigus americanus Walker.

Phorodon humuli Schrank-Koch. Theobald, 1916a, p. 171.

Schizoneura lanigera (Hausm.) Hartig (A. mali Tougard) (Myzoxylus mali Blot.) Passerini, 1863, p. 69.

Schizoneura lanigera Hausmann. (S. americana Riley in part, of authors). Patch, 1916b.

Schizoneura pyri (Fitch). Hunter, 1901, p. 82.

Siphocoryne avenae (Fab.) (mali Fitch) (prunifoliae Fitch) (avenae Fitch) (annuae Oestl.) (fitchii Sanderson) (Siphonophora avenae Thomas, in part). Pergande, 1904a, p. 8.

Siphocoryne avenae Fabricius (avenae sativae Schrank) (annuae Oestlund) (mali Fitch non Fabricius) (fitchii Sanderson) (crataegifoliae Fitch) Theobald, 1916a, p. 171.

Siphonaphis padi L. (A. avenae Fab.) van der Goot, 1915, p. 244.

P. sinensis.

Aphis pomi DeGeer. Matsumura, 1917a, p. 357.

Nippolachnus piri Matsumura. Matsumura, 1917a, p. 355.

Toxoptera piricola Matsumura. Matsumura, 1917a, p. 363.

P. sitchensis.

Schizoneura lanigera Hausmann. (S. americana in part, of authors). Patch, 1912a, p. 395.

P. terminalis Ehrh. (tormentalis Buck.).

Aphis aucupariae Buckton. Buckton, 2, p. 76.

Aphis sorbi Kalt. Buckton, 2, p. 59. Bayer, 1914a, p. 142.

P. sp.

Aphis crataegi Kalt. (pyri Boyer). Kaltenbach, 1874, p. 202.

Aphis kochi Schouteden. (pyri Koch nec Boyer). Schouteden, 1906a, p. 221.

Aphis pyri Boyer (not pyri Koch). Buckton, 2, p. 98.

ROSA. Rose.

R. californica Schlecht.

Macrosiphum rosae (Linn.) Essig, 1917a, p. 329.

Myzus rosarum Walker. Davidson, 1910, p. 379.

R. canina L. Dog Rose.

Capitophorus tetrarhodus Walker. (*Siphonophora rosarum* Koch). van der Goot, 1915, p. 131.

Lachnus rosae Cholodkovsky. Cholodkovsky (in Russian).

Macrosiphum dirhodum (Walker). van der Goot, 1915, p. 63.

Myzaphis rosarum Kalt. (not Lichtenstein nor Buckton). van der Goot, 1915, p. 188.

Semiaphis trirhodus Walker. (*Hyalopterus aquilegiae* Koch). van der Goot, 1915, p. 273.

Siphonophora rosae (Reaumur) Koch. Buckton, 1, p. 109.

Siphonophora rosae var. *glauca* Buckton. Buckton, 1, p. 109.

Siphonophora rosae (Koch) (*Aphis rosae* L. auct.) (*A. dipsaci* Schrank). Passerini, 1863, p. 11.

Siphonophora rosarum (Walker) Koch. Buckton, 1, p. 151.

R. centifolia L.

Aphis dirhoda Walker. Walker, 1849a, p. 43.

Aphis rosae Linn. (*A. dipsaci* Schrank) (*Puceron du Rosier* Gotz.) Kaltenbach, 1843, p. 4.

Aphis rosarum Kalt. Kaltenbach, 1874, p. 224.

Hyalopterus delineatus Buckton. Buckton, 2, p. 113.

Siphonophora glauca Buckton. Buckton, 1, p. 109.

Siphonophora rosae (Reaumur) Koch. Buckton, 1, p. 109.

R. cinnamomea L. Cinnamon Rose.

Hyalopterus aquilegiae-flavus (Kittel) (*Aphis*) (*flavus* Schouteden) (*aquilegiae* Koch) (*trirhoda* Walker). Hayhurst, 1909a, p. 108.

R. Eglanteria L.

Aphis dirhoda Walker. Walker, 1849a, p. 43.

R. gallica L.

Aphis rosarum Kalt. Kaltenbach, 1874, p. 224.

Hyalopterus aquilegiae-flavus (Kittel) (*Aphis*) (*flavus* Schouteden) (*aquilegiae* Koch) (*trirhoda* Walker). Hayhurst, 1909a, p. 112.

Hyalopterus delineatus Buckton. Buckton, 2, p. 113.

Myzus tetrarhoda (Walker) Pass. (*S. rosarum* Koch). Passerini, 1863, p. 25.

Siphonophora rosaccola Passerini. Passerini Flora.

R. indica L.

Hyalopterus aquilegiae-flavus (Kittel) (*Aphis*) (*flavus* Schouteden) (*aquilegiae* Koch) (*trirhoda* Walker). Hayhurst, 1909a, p. 112.

Myzus tetrarhoda (Walker) Pass. (*S. rosarum* Koch). Passerini, 1863, p. 25.

R. multiflora.

Macrosiphum ibarac Matsumura. Matsumura, 1917a, p. 360.

R. rubiginosa L.

Siphonophora rosae Koch. (*Aphis rosae* L. auct.) (*A. dipsaci* Schrank). Passerini, 1863, p. 11.

Siphonophora rosarum (Walk.) Koch. Buckton, 1. p. 151.

R. sempervirens L.

Hyalopterus trirhoda Walker. Macchiati, 1883, p. 237.

Myzus tetrarhoda Walker. Macchiati, 1883, p. 236.

R. sp.

Aphis (Adactynus) dipolepha Rafinesque. Rafinesque, 1818.

Aphis (Adactynus) rhodryas Rafinesque. Rafinesque, 1818.

Aphis (Adactynus) rosa-suaveolens Rafinesque. Rafinesque, 1818.

Hyadaphis flavus Kittel (*aquilegiae* Koch) (*trirhodus* Walker) Schouteden, 1906a, p. 230.

Hyalopterus trirhoda (Walker) Pass. (*H. aquilegiae* Koch) Buckton, 2, p. 115.

Lachnus maculatus Lichtenstein. Lichtenstein La Flore.

Lachnus rosae Cholodkovsky. Patch, 1917a, p. 418.

Lachnus rosae Cholodkovsky. (*maculatus* Licht?) (*rosarum* van der Goot). van der Goot, 1915a, p. 409.

Macrosiphum rosae Reaumur. (*A. dipsaci* Schrank) (*S. rosae* Koch) (*S. scabiosae* Buckton). van der Goot, 1915, p. 90.

Macrosiphum solanifolii Ashmead. Patch, 1915e, p. 214.

Myzus rosarum (Walker) (*potentillae* Oestl.) Oestlund, 1887, p. 73.

Myzus roseus Macchiati. Lichtenstein La Flore.

Nectarophora pallida Oestlund. Oestlund, 1887, p. 84.

Rhopalosiphum nervatum Gillette. Gillette, 1908a, p. 63.

Siphonophora rosae var. *floridae* Ashmead. Ashmead, 1882, p. 88.

Siphonophora rosae Reaumur. Theobald, 1911, p. 16.

Siphonophora ulmariae Schrank. (*onobrychis* Boyer) (*pisi* Kalt.) (*gei* Koch). Ferrari, 1872, p. 55.

RUBUS. Bramble.**R. cassius** L.

Aphis rubi Kalt. Kaltenbach, 1874, p. 239.

Aphis urticae Fab. (*urticaria* Kalt.) Passerini, 1863, p. 37.

R. corylifolius Sm. Fl. Brit.

Aphis rubi Kalt. Kaltenbach, 1843, p. 24.

R. dalmaticus D. C.

Hyalopterus trirhoda Walker. Macchiati, 1883, p. 237.

R. discolor.

Aphis rubi Kalt. Kaltenbach, 1874, p. 239.

R. fruticosus L.

Aphis urticae Fab. (*urticaria* Kalt.) Ferrari, 1872, p. 65.

Aphis urticaria Kalt. Buckton, 2, p. 51.

Macrosiphum chelidonii Kaltenbach? Theobald, 1913, p. 54.

Siphonophora cyparissiae Koch. Buckton, 1, p. 114.

- Siphonophora rubi* (Kalt.) Koch. Buckton, 1, p. 141.
- R. idaeus** L. (aculeatissimus. Wild Red Raspberry) (strigosus Michx.). Raspberry.
Aphis idaei van der Goot. van der Goot, 1915, p. 204.
Aphis rubicola Oestlund. Oestlund, 1887, p. 60.
Aphis urticae Fab. Passerini, 1874, p. 2.
Aphis urticaria Kalt. Buckton, 2, p. 51.
Macrosiphum rubicola (Oestlund). Oestlund, 1887, p. 78.
Siphonophora chelidonii (Kalt.) Koch. Buckton, 1, p. 122.
Siphonophora funesta Macchiati. Zoological Record, 1885, p. 240.
Siphonophora rubi (Kalt.). Koch. Buckton, 1, p. 141.
- R. nutkanus** Moc.
Amphorophora rubicola (Oestlund). Davidson, 1914, Jour. Ec. Ent. Vol. 7, p. 136.
- R. occidentalis** L. Black Raspberry. Thimbleberry.
Amphorophora rubi (Kalt.) Gillette, 1911a, p. 381.
Aphis sp. Sanborn, 1904, p. 62.
Pemphigus rubi Thomas. "Accidental visitant?" Thomas, 1879, p. 148.
- R. parviflorus** Nutt. Thimbleberry.
Nectarosiphum rubicola (Oestlund). Essig, 1917a, p. 328.
- R. saxatilis** L.
Nectarosiphum rubi (Kaltenbach). Bayer, 1914a, p. 133.
- R. villosus** Ait. Dewberry.
Nectarophora rubi (Kalt.). Hunter, 1901, p. 116.
Sipha rubifolii Thomas. Sanborn, 1904, p. 44.
("Undescribed genus?" Davis, 1909b, p. 157.).
- R. vitifolius** C. & S. Wild Blackberry.
Amphorophora rubi (Kalt.) Essig, 1917a, p. 330.

SANGUISORBA. Burnet.

- S. sp.**
Aphis sanguisorbae Schrank. Kaltenbach, 1874, p. 245.

SPIRAEA.

- S. prunifolia** Sieb.
Aphis spiracella Schouteden. Gillette, 1910, p. 404.
- S. salicifolia** Linn. Meadow-sweet.
Aphis spiracae Oestlund. Oestlund, 1887, p. 68.
Aphis spiracella Schouteden. Essig, 1911a, p. 463.
Macrosiphum ulmariae (Schrank). Bayer, 1914a, p. 135.
- S. Thunbergi.**
Aphis kogomeccola Matsumura. Matsumura, 1917a, p. 357.
- S. ulmaria.** See *Filipendula*.
- S. sp.**
Acyrtosiphon ignotum Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 147.

Acyrtosiphon soldatovi Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 168.

Aphis pisi Kalt. (*ulmariae* Schrank). Kaltenbach, 1874, p. 242.

Aphis n. sp. Kalt. Kaltenbach, 1874, p. 243.

Macrosiphum cholodkovsky Mordwilko. Zoological Record, 1909, p. 404.

Macrosiphum portschinskyi Mordwilko. Zoological Record, 1909, p. 404.

ULMARIA.

U. *ulmaria*. See *Filipendula*.

LEGUMINOSAE. PULSE FAMILY.

ANAGYRIS.

A. sp.

Aphis craccivora Koch. Lichtenstein La Flore.

ASTRAGALUS. Milk Vetch.

A. *bisulcatus* Hook.

Aphis medicaginis Koch. Cowen, 1895, p. 120.

A. *leucopis* Torr. Loco Weed.

Aphis medicaginis Koch. Essig, 1912, Host Index II, p. 826.

A. sp.

Rhopalosiphum persicae Sulzer. Matsumura, 1917a, p. 362.

CARAGANA.

C. *arborescens* Lam.

Acyrtosiphon caraganae (Cholodkovsky) (*psi* Bogdanov) (*ulmariae* part, Cholodkovsky). Mordwilko, 1914, Faune de la Russie, p. 152.

Aphis medicaginis Koch. Hunter, 1901, p. 101.

C. *pymaea* D. C.

Acyrtosiphon caraganae (Cholodkovsky) Mordwilko, 1914, Faune de la Russie, p. 153.

CERATONIA.

C. sp.

Aphis ceratoniae Licht. (ined.). Lichtenstein La Flore.

CERCIS. Redbud.

C. *canadensis* L. Redbud.

Lachnus longistigma Monell. Sanborn, 1904, p. 31.

COLUTEA.

C. *arborescens* L.

Aphis pisi Kalt. Kaltenbach, 1874, p. 134.

Pemphigus colutcae Pass. Passerini, 1863, p. 75.

Siphonophora ulmariae (Schränk and Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

CORONILLA.

C. pusilla.

Aphis coronillae Ferrari. Ferrari, 1872, p. 69.

CYTISUS. Broom.

C. laburnum. See Laburnum vulgare.

C. nigricans L.

Aphis laburni Kalt. Passerini Flora.

C. scoparius (L.) Link. Sarothamnus scoparius L. (Spartum scoparium). Scotch Broom.

Aphis genistae Kaltenbach. Theobald, 1911-12.

Aphis laburni Kalt. (genistae Boyer). Passerini, 1863, p. 45.

Aphis pisi Kalt. Kaltenbach, 1874, p. 107.

Aphis setosa Kalt. Kaltenbach, 1874, p. 107.

Aphis spartii Koch. Kaltenbach, 1874, p. 108.

Siphonophora menthae Buckton. Buckton, 1, p. 121.

Siphonophora rubi (Kalt.) Koch. Buckton, 1, p. 141.

C. (Sarothamnus).

Schizoncúra spartanthi Boisduval. Lichtenstein, Flore Supplement.

Siphonophora ulmariae Pass. Passerini Flora.

DESMODIUM. Tick Trefoil.

D. canadense DC.

Microparsus variabilis Patch. (Macrosiphum n. sp. Sanborn Kans. Aphid. p. 71). Patch, 1909b, p. 337.

D. canescens L.

Siphonophora desmodii Williams. Williams, 1910 (1911), p. 76.

DOLICHOS.

D. monacalis.

Aphis medicaginis Koch. Del Guercio, 1909 (1910), Redia VII, p. 297.

D. sp.

Aphis dolichii Signoret. Lichtenstein, Flore Supplement.

ERVUM. See Vicia.

FABA.

F. vulgaris. See Vicia Faba.

GENISTA. Woad-waxen.

G. anglica L.

Aphis genistae Kalt. Kaltenbach, 1874, p. 113.

Aphis rumicis Linn. Walker, 1850a, p. 19.

G. germanica L.

Aphis genistae Scopoli. Passerini, 1863, p. 47.

G. ovata Waldst.

Aphis craccae Schrank. Ferrari, 1872, p. 71.

G. tinctoria L. Dyer's Greenweed.

Acyrtosiphon genistae Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 144.

Aphis genistae Kalt. Kaltenbach, 1874, p. 113.

Aphis laburni Kalt. Pierre, 1905, p. 160.

Aphis rumicis Linn. Walker, 1850a, p. 19.

G. sp.

Aphis genistae Boyer. Lichtenstein, La Flore.

Aphis rumicis L. (evonymi Fab.) (papaveris Fab.) (atriplicis Fab.) *genistae* Scopoli. van der Goot, 1915, p. 225.

Siphonophora ulmariae (Schrank, Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

GLYCINE.

G. hispida.

Aphis glycines Matsumura. Matsumura, 1917a, p. 531.

G. sp.

Macrosiphum solani Kalt. Matsumura, 1917a, p. 361.

Rhopalosiphum persicae Sulzer. Matsumura, 1917a, p. 362.

GLYCYRRHIZA. Liquorice.

G. lepidota Nutt. Wild Liquorice.

Aphis medicaginis Koch. Gillette and Taylor, 1908, p. 32.

HEDYSARUM.

H. onobrychis. See *Onobrychis viciaefolia* Scop.

LABURNUM.

L. vulgare Gris. (*Cytisus laburnum*).

Aphis cytisorum Hartig. Hartig, 1841, p. 370.

Aphis laburni Kalt. Buckton, 2, p. 86. Theobald, 1911-12. van der Goot, 1915, p. 210.

Aphis rumicis Linn. Walker, 1850a, p. 19.

LATHYRUS. Everlasting Pea.

L. angustifolius.

Macrosiphum pisi (Kaltenbach) (*A. lathyri* Mosley) (*A. onobrychis* B. de Fonsc?) (*S. ulmariae* Pass. nec Schrank) (*N. destructor* Johnson) (*M. trifolii* Pergande) Davis, 1915a, p. 12.

L. hirsutus Linn. (*Orobis lathyroides* Habl.).

Acyrtosiphon pisi pisi (Kalt.) Mordwilko, 1914, Faune de la Russie, p. 86.

L. latifolius L. Everlasting or Perennial Pea.

Acyrtosiphon pisi pisi (Kalt.) Mordwilko, 1914, Faune de la Russie, p. 85.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

Siphonophora ulmariae (Schrank, Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

Siphonophora viciae Kalt. Ferrari, 1872, p. 56.

L. odoratus L.

Aphis bakeri Cowen. Patch, 1913, Bul. 207, p. 448.

Aphis dissita Walker. Walker, 1849c, p. 34.

Macrosiphum pisi (Kaltenbach) (Aphis lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (N. trifolii Pergande). Davis, 1915a, p. 11.

L. pratensis L.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson). (M. trifolii Pergande). Davis, 1915a, p. 11.

Rhopalosiphum viciae (Kaltenbach). van der Goot, 1915, p. 153.

L. sativus. Grass Pea.

Macrosiphum pisi (Kaltenbach) (Aphis lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande). Davis, 1915a, p. 11.

L. sylvestris. Flat Pea.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

L. sp.

Acyrtosiphon pisi ussuriensis Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 140.

Megoura viciae Kaltenbach (*viciae* Buckton). Theobald, 1911-12.

LESPEDeza.**L. bicolor.**

Macrosiphum hagicola Matsumura. Matsumura, 1917a, p. 360.

L. sp.

Macrosiphum solani Kalt. Matsumura, 1917a, p. 361.

LOTUS. Bird's-foot Trefoil.**L. corniculatus** L.

Aphis craccae Linn. (A. *viciae* Fab.). Theobald, 1911-12.

Aphis loti Koch. Del Guercio, 1909 (1910), Redia VII, p. 298.

Aphis loti Kaltenbach. Schouteden, 1906a.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Macrosiphum lathyri Walker? Theobald, 1911-12.

Macrosiphum loti Theobald. Theobald, 1913, Jour. Ec. Biol. Vol. 8, p. 54.

Macrosiphum pisi Kalt. (lathyrí Walker) (cyparissiae Koch) (ononis Koch) van der Goot, 1915, p. 85.

L. uliginosus Schkuhr.

Siphonophora pisi (Kalt.) Koch. (ulmariae Schrank) (onobrychis Boyer) (lathyrí Walker). Buckton, 1, p. 135.

L. sp.

Siphonophora ulmariae (Schrank, Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

LUPINUS. Lupine.

L. albifrons.

Macrosiphum albifrons Essig. Essig, 1911b, p. 546.

L. arboreus Sims. Tree Lupine.

Macrosiphum albifrons Essig. Essig, 1917a, p. 328.

L. latifolius Agarth.

Macrosiphum albifrons Essig. Essig, 1917a, p. 328.

MEDICAGO. Medick.

M. denticulata Willd.

?*Aphis gossypii* Glover. Fullaway, 1909, p. 39.

Aphis medicaginis Koch. Davidson, 1909, p. 302.

M. falcata Linn.

Aphis medicaginis Koch. Kaltenbach, 1874, p. 123.

Macrosiphum pisi (Kaltenbach) (A. lathyrí Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

Siphonophora ulmariae Schrank (pisi Kalt.) Mordwilko, 1909, p. 103.

M. lupulina L. Black Medick. Nonesuch.

Siphonophora ulmariae Schrank (A. onobrychis Boyer) (A. pisi Kalt.) (S. pisi Koch) (S. gei Koch. Macchiati, 1883, p. 232.

M. orbicularis All.

Aphis medicaginis Koch. Macchiati, 1883, p. 255.

M. sativa L. Lucerne. Alfalfa.

Acyrtosiphon pisi turanicum Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 139.

Aphis medicaginis Koch. Passerini, 1863, p. 42.

Callipterus trifolii Monell. (Chaitophorus maculatus Buckton) (Aphis ononidis Kalt?) Davis, 1914, U. S. D. A., B. E. Tech. Ser. 25, Pt. II.

Chaitophorus maculatus Buckton. Buckton, 1899b, p. 277.

Macrosiphum creelii Davis. Davis, 1914, Can. Ent. 46, p. 47.

Macrosiphum pisi (Kaltenbach) (A. lathyrí Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

Myzocallis ononidis (Kalt.) Pass. (C. ononidis Koch). Passerini, 1863, p. 54.

Pemphigus betae Doane. Parker, 1914, p. 137. Jour. Ec. Ent. Vol. 7.

Siphonophora ulmariae (Schrank, Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

MELILOTUS. Sweet Clover.

M. alba Lam. White Melilot.

Aphis medicaginis Koch. Hunter, 1901, p. 126.

Macrosiphum pisi (Kaltenbach) (*Aphis lathyri* Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

M. italica Lam.

Aphis medicaginis Koch. Hunter, 1901, p. 101.

M. pallida Bess. (macrorhiza).

Pemphigus lactucarius Pass. Passerini, 1863, p. 77.

M. sp.

Aphis papaveris Fab. Lichtenstein, Flore Supplement.

MIMOSA.

M. sp.

Aphis mimosae Ferrari. Lichtenstein, La Flore.

ONOBRYCHIS.

O. viciaefolia Scop. (sativa) (Hedysarum Onobrychis).

Aphis pisi Kalt. (A. ulmariae Schrank) (onobrychis Boyer) Kaltenbach, 1874, pp. 118, 137.

Siphonophora ulmariae Pass. (*Aphis ulmariae* Boyer). Kaltenbach, 1874, p. 777.

ONONIS.

O. diffusa. See *O. serrata*.

O. hircina Jacq.

Acyrtosiphon pisi pisi (Kalt.) Mordwilko, 1914, Faune de la Russie, p. 85.

Mysocallis ononidis (Kalt.) Pass. (C. ononidis Koch.). Passerini, 1863, p. 54.

O. Natrix L.

Aphis apocyni Koch. Ferrari, 1872, p. 68.

Aphis brunnea Ferrari. Ferrari, 1872, p. 70.

O. repens L.

Macrosiphum pisi Kalt. (lathyri Walker) (cyparissiae Koch.) (ononidis Koch.) van der Goot, 1915, p. 84.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

Mysocallis ononidis Pass. Passerini Flora.

Pergandeida ononidis Schouteden. Schouteden, 1906a, p. 215.

Siphonophora ulmariae Pass. Passerini Flora.

O. serrata Forsk. (diffusa).

Myzocallis ononidis Kalt. (*Chaitophorus ononidis* Koch). Macchiati, 1883, p. 260.

Siphonophora ononis Koch. Macchiati, 1883, p. 230.

O. spinosa L.

Aphis incumbens Walker. Walker, 1849c, p. 35.

Aphis inducta Walker. Walker, 1849c, p. 35.

Aphis translata Walker. Walker, 1849c, p. 35.

Chaitophorus ononidis Kalt. (*Ch. spinulosus* Koch in litt.). Koch, p. 5.

Myzocallis ononidis Kalt. (*Aphis*). Ferrari, 1872, p. 75.

Siphonophora ononis Koch. Koch, p. 175.

Siphonophora ulmariae Pass. Passerini Flora.

O. sp.

Aphis brunnea Macchiati. Zoological Record, 1885, p. 239.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Therioaphis ononidis (Pass.) Walker. Wilson, 1910, p. 155.

OXYTROPIS. (Aragallus.)

O. lamberti Pursh. (*Aragallus lamberti*).

Aphis medicaginis Koch. Williams, 1891, p. 20.

PHASEOLUS. Kidney Bean.

P. coccineus L.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Tychea phaseoli Pass. Buckton, 4, p. 90.

P. lunatus L.

?*Aphis gossypii* Glover. Fullaway, 1909, p. 39.

P. multiflorus Willd. Scarlet Runner.

Pemphigus globosus Walker. Walker, 1852, p. 1057.

Siphonophora ulmariae Pass. Passerini Flora.

Tychea phaseoli Pass. Passerini Flora.

P. vulgaris L. (nanus).

Aphis gossypii Glover. (*citrifolii* Ashm. in part) (*citrulli* Ashm.) (*cucumeris* Forbes) (*forbesi* Weed?). Pergande, 1895, p. 314.

Aphis papaveris Fab. Del Guercio, 1909 (1910), Redia VII, p. 297.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Lachnus longitarsus Ferrari. Zoological Record, 1872, p. 418.

Macrosiphum solanifolii Ashmead. Patch, 1915e, p. 214.

Tullgrenia phaseoli Pass. van der Goot, 1915a, p. 516.

Tychea phaseoli Pass. Hunter, 1901, p. 69.

P. sp.

Aphis pseudobrassicæ Davis. Paddock, 1915a, p. 9.

Aphis rumicis (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistæ* Scopoli). van der Goot, 1915, p. 225.

Siphonophora ulmariae (Schrank, Walker) (*onobrychis* Boyer) (*pisi* Kalt.) (*pisi* Koch) (*gei* Koch). Passerini, 1863, p. 13.

PISUM.

P. arvense L.

Aphis pisi Kalt. Kaltenbach, 1874, p. 118.

P. sativum L. Garden Pea.

Acyrtosiphon pisi turanicum Mordwilko. Mordwilko, 1914, *Faune de la Russie*, p. 139.

Aphis crataegifoliae Fitch. Quaintance and Baker, 1917, p. 18.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Macrosiphum pisi Kalt. (*lathyri* Walker) (*cyparissiae* Koch) (*ononis* Koch) van der Goot, 1915, p. 86.

Macrosiphum pisi (Kaltenbach) (*A. lathyri* Mosley) (*A. onobrychis* B. de Fonsc?) (*S. ulmariae* Pass. nec Schrank) (*N. destructor* Johnson) (*M. trifolii* Pergande) Davis, 1915a, p. 11.

Macrosiphum solanifolii Ashmead. Patch, 1915e, p. 214.

Siphonophora ulmariae (Schrank, Walker) (*onobrychis* Boyer) (*pisii* Kalt.) (*pisii* Koch). Passerini, 1863, p. 13.

P. sp.

Aphis rumicis L. (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistae* Scopoli). van der Goot, 1915, p. 225.

Macrosiphum solani Kalt. Matsumura, 1917a, p. 361.

Myzus pergandii Sanderson. Sanderson, 1901a, p. 73.

ROBINIA. Locust.

R. Pseudo-Acacia L. Common Locust. False Acacia.

Aphis laburni Kalt. Cholodkovsky, 1910, p. 145.

Aphis robiniae Macchiati. Del Guercio, 1900, p. 133.

Callipterus robiniae Gillette. Gillette, 1907a, p. 395.

Rhopalosiphum dianthi (Schrank). Williams, 1891, p. 7.

R. viscosa Vent. Clammy Locust.

Aphis medicaginis Koch. Hunter, 1901, p. 101.

SAROTHAMNUS. See Cytisus.

SPARTIUM.

S. junceum L.

Siphonophora ulmariae Schrank. (*A. onobrychis* Boyer) (*A. pisi* Kalt.) (*S. pisi* Koch) (*S. gei* Koch). Macchiati, 1883, p. 232.

S. sp.

Aphis laburni Kalt. Lichtenstein, *La Flore*.

TEPHROSIA. (Cracca). Hoary Pea.

T. sp.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Aphis viciae Kalt. Kaltenbach, 1874, p. 143.

TRIFOLIUM.

T. filiforme.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

T. hybridum. Alsike Clover.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande). Davis, 1915a, p. 12.

T. incarnatum L. Crimson or Italian Clover.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 11.

Nectarophora pisi Kalt. (ulmariae Schrank) (onobrychis Boyer) (lathyri Mosley) (gei Koch) (viciae Curtis not Fab.) (destructor Johnson). Sanderson, 1900, p. 171.

T. medium perenne. Mammoth Clover.

Callipterus trifolii Monell. (Chaitophorus maculatus Buckton) (Aphis ononidis Kalt?) Davis, 1914, U. S. D. A. Bur. Ent., Ser. 25, Pt. II.

T. pratense L. Red Clover.

Aphis bakeri Cowen. Davis, 1908, p. 259.

Aphis gossypii Glover (citrifolii Ashm. in part) (citrulli Ashm.) (cucumeris Forbes) (forbesi Weed?) Pergande, 1895, p. 314.

Aphis pisi Kalt. Kaltenbach, 1874, p. 118.

Callipterus trifolii Monell. (Chaitophorus maculatus Buckton) (Aphis ononidis Kalt?). Davis, 1914, U. S. D. A. Bur. Ent. Tech. Ser. 25, Pt. II.

Macrosiphum cerealis (Kalt.) Pergande, 1904a, p. 20.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande). Davis, 1915a, p. 11.

Macrosiphum pisi Kalt. (lathyri Walker) (cyparissiae Koch) (ononis Koch). van der Goot, 1915, p. 86.

Myzocallis trifolii (Monell). Gillette, 1910, p. 369. (genevii Sanborn). Baker, 1917f, p. 424.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 35.

T. procumbens L. Low Hop Clover.

Macrosiphum trifolii Theobald. Theobald, 1913, Jour. Ec. Biol. Vol. 8, p. 55.

Myzocallis ononidis (Kalt.) Pass. (C. ononidis Koch). Passerini, 1863, p. 54.

T. repens L. White Clover

Aphis cephalicola Cowen. Cowen, 1895, p. 118.

Aphis trifolii Oestlund. Oestlund, 1887, p. 55.

Callipterus trifolii Monell. (Chaitophorus maculatus Buckton) (Aphis ononidis Kalt?) Davis, 1914, U. S. D. A. Bur. Ent., Tech. Ser. 25, Pt. II.

Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmicariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande). Davis, 1915a, p. 11.
Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 35.

T. sp.

Aphis bakeri Cowen. Patch, 1915b, p. 433.
Aphis brevis Sanderson. Patch, 1915b, p. 431.
Aphis crataegifoliae Fitch. Quaintance and Baker, 1917, p. 18.
Aphis rumicis L. (evonymi Fab.) (papaveris Fab.) (atriplicis Fab.) (genistae Scopoli). van der Goot, 1915, p. 225.
Aphis scaliae Del Guercio. Del Guercio, 1914.
Geioica squamosa Hart. Hart, 1891 and 1892, p. 99.
Rizoberlesia trifolii Del Guercio. Del Guercio, 1914.

ULEX. Furze.

U. europaeus L.

Aphis rumicis Linn. Walker, 1850a, p. 19.

U. sp.

Aphis papaveris Fab. Lichtenstein, Flore Supplement.
Aphis rumicis Linn. (fabae Kirby) (genistae Scop.) (ulicis Fab?) (euphorbiae Kalt?) (dahliae Mosley) (Cinara rumicis Mosley) (Rumicifex Amyot) (Genistifex Amyot). Buckton, 2, p. 84.

VICIA. Ervum. Vetch. Tare.

V. amoena.

Acyrtosiphon pisi pisi (Kalt.) Mordwilko, 1914, Faune de la Russie, p. 86.

V. cracca L.

Aphis craccae Linn. Kaltenbach, 1874, p. 144.
Aphis craccae Schrank. (A. viciae craccae L.). Passerini, 1863, p. 46.
Aphis craccivora Koch. Kaltenbach, 1874, p. 144.
Aphis rumicis Linn. Thomas, 1879, p. 88.
Aphis viciae Kalt. Kaltenbach, 1874, p. 143.
Macrosiphum pisi (Kaltenbach) (A. lathyri Mosley) (A. onobrychis B. de Fonsc?) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande) Davis, 1915a, p. 12.

V. Faba L. (Faba vulgaris).

Aphis papaveris Fab. (thlaspeos Schrank) (aparines) (fabae Scopoli). Ferrari, 1872, p. 71.
Aphis rumicis Linn. Walker, 1850a, p. 19.
Aphis viciae Kalt. Kaltenbach, 1874, p. 143.

V. gigantea Hook.

Macrosiphum pisi (Kaltenbach) (A. onobrychis B. de Fonsc?) (A. lathyri Mosley) (S. ulmariae Pass. nec Schrank) (N. destructor Johnson) (M. trifolii Pergande). Davis, 1915a, p. 11.

V. ludoviciana Nutt.

Macrosiphum pisi (Kaltenbach) (*A. lathyri* Mosley) (*A. onobrychis* B. de Fonsc?) (*S. ulmariae* Pass. nec Schrank) (*N. destructor* Johnson) (*M. trifolii* Pergande). Davis, 1915a, p. 11.

V. narbonensis L.

Aphis medicaginis Koch. Passerini, 1863, p. 42.

V. pseudo-cracca Bert.

Aphis craccae Schrank. Macch'ati, 1883, p. 240.

V. pulchella H. B.

Aphis atronitens Cockerell. Cockerell, 1903b, p. 115. "*Vicia* aff. *pulchella*."

V. sativa L. (*angustifolia*). Spring Vetch.

Aphis craccae L. Kaltenbach, 1874, p. 144.

Aphis papaveris Fab. (*fabae* Scop.) (*aparines* Schrank). Passerini, 1863, p. 46.

Aphis viciae Kalt. Kaltenbach, 1874, p. 143.

Macrosiphum pisi (Kaltenbach) (*A. lathyri* Mosley) (*A. onobrychis* B. de Fonsc?) (*S. ulmariae* Pass. nec Schrank) (*N. destructor* Johnson) (*M. trifolii* Pergande). Davis, 1915a, p. 12.

V. sepium L.

Aphis tribulis Walker. Walker, 1849c, p. 34.

Aphis viciae Kalt. Kaltenbach, 1874, p. 143.

Macrosiphum pisi (Kaltenbach) (*A. lathyri* Mosley) (*A. onobrychis* B. de Fonsc?) (*S. ulmariae* Pass. nec Schrank) (*N. destructor* Johnson) (*M. trifolii* Pergande) Davis, 1915a, p. 12.

V. villosa Roth...Hairy or Winter Vetch.

Macrosiphum pisi (Kaltenbach) (*A. lathyri* Mosley) (*A. onobrychis* B. de Fonsc?) (*S. ulmariae* Pass. nec Schrank) (*N. destructor* Johnson) (*M. trifolii* Pergande). Davis, 1915a, p. 11.

V. sp.

Aphis rumicis L. (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistae* Scopoli). van der Goot, 1915, p. 225.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

VIGNA.

V. catjang Walpers.

Aphis medicaginis Koch. Essig, 1917a, p. 340.

V. sinensis.

Melanoxanthus sinensis Matsumura. Matsumura, 1917a, p. 359.

LEGUMINOSAE.

L. sp.

Acyrtosiphon dubium Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 180. "in quadam Papilionacearum."

LINACEAE. FLAX FAMILY.

LINUM. Flax.

L. sp.

Pemphigus betae Doane. Parker, 1914, p. 137. Jour. Ec. Ent., Vol. 7.

OXALIDACEAE. WOOD SORREL FAMILY.

OXALIS. Wood Sorrel.

O. corniculata L. Lady's Sorrel.

Aphis oxalis Macchiati. Macchiati, 1883, p. 256.

O. stricta L.

Aphis maidi-radici Forbes. Davis, 1909b, p. 124.

O. sp.

Aphis maidis Fitch. Davis, 1909b, p. 145.

Rhopalosiphum dianthi (Schrank). Williams, 1891, p. 19.

GERANIACEAE. GERANIUM FAMILY.

ERODIUM. Storksbill.

E. Botrys Bert.

Siphonophora malvae Mosley. (A. *pelargonii* Kalt.) (A. *pallida* Walker) (S. *pelargonii* Koch) (S. *diplantherae* Koch). Macchiati, 1883, p. 230.

E. cicutarium L'Herit. ex Ait.

Aphis rumicis Linn. Walker, 1850a, p. 19.

GERANIUM. Cranesbill.

G. maculatum L. Wild Cranesbill.

Nectarophora geranii Oestlund. Oestlund, 1887, p. 81.

G. molle L.

Aphis geranii Kalt. Kaltenbach, 1874, pp. 81-82.

Siphonophora malvae (Mosley) Pass. (A. *pelargonii* Kalt.) (A. *pallida* Walker) (S. *pelargonii* Koch) (S. *diplantherae* Koch). Passerini, 1863, p. 14.

G. pusillum Burm.

Aphis geranii Kalt. Kaltenbach, 1874, p. 81.

G. Robertianum L. Herb Robert.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

Aphis urticae Schrank. Kaltenbach, 1874, p. 81.

Siphonophora pelargonii Kalt. Koch, pp. 193, 194.

Siphonophora urticae (Kalt.). Koch. Buckton, 1, p. 144.

G. sp.

Siphonophora circumflexa Buckton. Theobald, 1911, p. 17.

Siphonophora pelargonii (Kalt.) Koch. (*pallida* Walker) (*fragaria* Walker?) (*diplantherae* Koch?) (*malvae* Pass.) Buckton, 1, p. 137.

PELARGONIUM.

P. sp.

Aphis extranea Walker. Walker, 1849c, p. 2251.

Myzus ribis Linn. et auct. (Aphis) Ferrari, 1872, p. 62.

Myzus targionii Del Guercio. (*Myzus ribis*? Linn. Ferrari). Del Guercio, 1900, p. 152.

Siphonophora malvae (Mosley) Pass. (*A. pelargonii* Kalt.) (*A. pallida* Walker) (*S. pelargonii* Koch) (*S. diplantherae* Koch). Passerini, 1863, p. 14.

TROPAEOLUM.

T. majus L.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 35.

T. tricolorum Sweet. (tricolor).

Aphis dianthi Schrank. Walker, 1850a, p. 122.

T. sp.

Aphis rumicis L. (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistae* Scopoli. van der Goot, 1915, p. 225.

RUTACEAE. RUE FAMILY.

CITRUS.

C. Aurantium L. (vulgaris). Orange.

Aphis citri Ashmead. Essig, 1909, p. 49.

Aphis gossypii Glover. (*citrifolii* Ashmead, in part) (*citrulli* Ashmead) (*cucumeris* Forbes) (*forbesi* Weed?) Pergande, 1895, p. 314. Essig, 1911c, p. 590.

Aphis tavaresi Del Guercio. Tavares, 1908, pp. 142-144.

Myzus asclepiadis Pass. Ferrari, 1872, p. 62.

Myzus citricidus Kirkaldy. Fullaway, 1909, p. 28.

Myzus persicae (Sulzer). Essig, 1911c, p. 600.

Siphonophora citrifolii Ashmead. Ashmead, 1882, p. 91. Essig, 1911c, p. 592.

Toxoptera aurantii Boyer. (Aphis) (*Aphis camelliae* Kalt.) (*Ceylonia theaecola* Buckton). Phillips and Davis, 1912, p. 8.

Toxoptera aurantii Koch. Buckton, 3, p. 135. Essig, 1911c, p. 601.

C. Medica L. (limonum) (limetta).

Aphis tavaresi Del Guercio.

Myzus persicae (Sulzer). Essig, 1911c, p. 600.

Toxoptera aurantii Boyer. (Aphis) (*A. camelliae* Kalt.). Ferrari, 1872, p. 62.

C. sp.

Aphis citricola van der Goot. van der Goot, 1912, "Über einige wahrscheinlich neue Blattlausarten," p. 275.

Aphis cookii Essig. (*gossypii* Essig 1910a). Essig, 1911c, p. 587.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

Aphis medicaginis Koch. Essig, 1917a, p. 340.

MELICOPE. (Pelea).

M. sp.

Toxoptera aurantiae Koch. Fullaway, 1909, p. 32.

RUTA. Rue.

R. graveolens L. Common Rue.

Siphonophora jaceae Linn. Ferrari, 1872, p. 58. Theobald, 1913, p. 54.

SIMARUBACEAE. QUASSIA FAMILY.

AILANTHUS. Tree of Heaven.

A. glandulosa L.

Aphis mali Fab. (A. pomi DeGeer) (A. oxyacanthae Schrank). Macchiati, 1883, p. 255.

A. sp.

Aphis mali Macchiati. Lichtenstein, Flore Supplement.

POLYGALACEAE. MILKWORT FAMILY.

POLYGALA. Milkwort.

P. Senega L. Seneca Snakeroot

Aphis (Adactynus) polygala-senega Raf. Rafinesque, 1818.

EUPHORBIACEAE. SPURGE FAMILY.

AND

BUXACEAE. BOX FAMILY.

ACALYPHA. Three-seeded Mercury.

A. virginica L.

Aphis gossypii Glover. (citrifolii Ashm. in part) (citrulli Ashm.) (cucumeris Forbes) (forbesi Weed?) Pergande, 1895, p. 314.

BUXUS.

B. sempervirens L.

Aphis papaveris var. *buxi* Del Guercio. Del Guercio, 1909 (1910) p. 297. Redia VII.

Aphis rumicis L. (evonymi Fab.) (papaveris Fab.) (atriplicis Fab.) (genistae Scopoli). van der Goot, 1915, p. 225.

EUPHORBIA. Spurge.

E. biglandulosa Desf.

Aphis euphorbiae Kalt. Macchiati, 1883, p. 239.

E. corollata L. Flowering Spurge.

Aphis euphorbia Kalt. Williams, 1891, p. 18.

E. Cyparissias L. Cypress Spurge.

Aphis euphorbiae Kalt. Passerini, 1863, p. 47.

Siphonophora cyparissiae Koch. Buckton, 1, p. 114.

E. Esula L.

Aphis euphorbiae Kalt. Passerini, 1863, p. 47.

E. gerardiana Facq.

Acyrtosiphon cyparissiae propinquum Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 193.

E. hirsuta (Torr.) Wiegand. (*Euphorbia hypericifolia*).

Siphonophora euphorbicola Thomas. Williams, 1891, p. 24.

E. lathyris L. Caper Spurge. Mole Cricket.

Tychea phaseoli Pass. Karsch, 1886, p. 1.

E. maculata L. Milk Purslane.

Siphonophora euphorbiae Thomas. Thomas, 1879, p. 57.

E. marginata Pursh. Snow-on-the-Mountain.

Siphonophora euphorbiae Thomas. Thomas, 1879, p. 57.

E. Paralias L.

Aphis rumicis Linn. Walker, 1850a, p. 18.

E. Peplus L. Petty Spurge.

Acyrtosiphon cyparissiae cyparissiae (Koch). Mordwilko, 1914, Faune de la Russie, p. 192.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

Aphis euphorbia Kalt. Macchiati, 1883, p. 239.

E. Terracina L.

Aphis euphorbiae Kalt. Macchiati, 1883, p. 239.

E. sp.

Aphis asclepiadis Fitch. Oestlund, 1887, p. 60.

Aphis cyparissiae Koch. Kaltenbach, 1874, p. 525.

Forda occidentalis Hart. Davis, 1910b, p. 408.

Tychea brevicornis Hart. Davis, 1910b, p. 408.

RICINUS. Castor-oil Plant.

R. communis L.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 35.

CALLITRICHACEAE. WATER STARWORT FAMILY.

CALLITRICHE. Water Starwort.

C. stagnalis Scop.

Rhopalosiphum nymphaeae Koch. Passerini, Flora.

ANACARDIACEAE. CASHEW FAMILY.

PISTACIA.

P. atlantica Desf.

Pemphigus riccobonii Stefani. Stefani, 1899, p. 1.

P. Lentiscus L.

Aphis (?) *pistaciae* Linn. Kaltenbach, 1843, p. 140.

Apaloneura lentisci Pass. Ferrari, 1872, p. 84.

P. Terebinthus L.

Aphis therebinthinae Virey. Hagen, p. 440.

- Pemphigus cornicularius* Pass. Lichtenstein, 1880a.
Pemphigus cornicularius Pass. (*A. pistaciae* L. auct. partim).
 Passerini, 1863, p. 72.
Pemphigus corniculoides Licht. Lichtenstein, 1880a.
Pemphigus derbesi Licht. (*P. pallidus* Derbes). Buckton, 3, p. 128.
Pemphigus follicularius Pass. Lichtenstein, 1880a.
Pemphigus folliculoides Licht. Lichtenstein, 1880a.
Pemphigus pallidoides Licht. Lichtenstein, 1880a.
Pemphigus retroflexus Courchet. Lichtenstein, 1880a.
Pemphigus semilunarius Pass. Lichtenstein, 1880a.
Pemphigus semilunoides Licht. Lichtenstein, 1880a.
Pemphigus utricularius Pass. Lichtenstein, 1880a.
Pemphigus utriculoides Licht. Lichtenstein, 1880a.

P. vera L.

Pemphigus coccus Buckton, 1889, p. 141.

P. sp.

- Ceratopemphigus zehntneri* Schouteden. Schouteden, 1905, p. 188.
 "on undetermined shrub, possibly a *Pistacia*."
Pemphigus edificator Buckton. Buckton, 1893, p. 71. "found on
 what was thought to be a variety of *Pistacia terebinthae*."
Pemphigus minus Derbes. Zoological Record, 1869, p. 501.

RHUS.

R. diversiloba T. and G.

Rholaposiphum rhois Monell (*howardii* Wilson?). Essig, 1917a, p. 334.

R. glabra L. Smooth Sumach

Pemphigus rhois (Fitch). Jackson, 1908, p. 203.
Rholaposiphum rhois Monell. Sanborn, 1904, p. 65.

R. semilata Murray.

Melaphis (*Schlechtendalia*) *chinensis* (Bell). Baker, 1917j, p. 385

R. trilobata.

Rholaposiphum rhois Monell. Gillette and Bragg, 1915, Jour. Ec. Ent. p. 100.

R. typhina L. Staghorn Sumach.

Pemphigus rhois (Fitch). Jackson, 1908, p. 203.

R. vernicifera.

Arimakia araliae Matsumura. Matsumura, 1917a, p. 363.

R. sp.

- Pemphigus cornicularius* Pass. (*pistaciae* L. and Boyer). Kaltenbach, 1874, p. 96.
Pemphigus semilunarius Pass. Kaltenbach, 1874, p. 96.
Pemphigus utricularius Pass. Kaltenbach, 1874, p. 96.
Schlechtendalia sinensis Doubleday. Lichtenstein, La Flore.
Tetraneura (*Aploneura*) *lentisci* Pass. Kaltenbach, 1874, p. 97.

CYRILLACEAE. CYRILLA FAMILY.

CYRILLA.

C. racemiflora L.

Pergandeida nigra Wilson. Wilson, 1911, p. 63.

AQUIFOLIACEAE. HOLLY FAMILY.

ILEX. Holly.

I. Aquifolium L.

Aphis ilicis Kalt. Kaltenbach, 1843, p. 88.

Aphis rumicis (evonymi Fab.) (papaveris Fab.) (atriplicis Fab.)
(genistae Scopoli). van der Goot, 1915, p. 225.

I. sp.

Aphis ilicicola Boisduval. Zoological Record, 1868, p. 416.

Aphis ilicis Kaltenbach. Theobald, 1911-12.

Aphis rumicis Linn. (fabae Kirby) (genistae Scop.) (ulicis Fab?)
(euphorbiae Kalt?) (dahliae Mosley) (Cinara rumicis Mos-
ley) (Rumicifex Amyot) (Genistifex Amyot). Buckton, 2, p.
84.

CELASTRACEAE. STAFF TREE FAMILY.

CELASTRUS. Staff Tree.

C. articulatus Thunb.

Aphis celastrii Matsumura. Matsumura, 1917a, p. 356.

C. scandens L. Waxwork. Climbing Bitter-sweet.

Nectarophora sp. Lintner, 1894, p. 512.

EVONYMUS. (Evonymus). Spindle Tree.

E. atropurpureus Jacq. (Waahoo). Burning Bush.

Aphis euonymi Fab. Weed, 1893, p. 298.

Aphis rumicis L. Thomas, 1879, p. 88.

Aphis rumicis L? (euonymi Fab.). Hayhurst, 1909b, p. 98.

Aphis sp. Sanborn, 1904, p. 58.

E. bungeana.

Aphis evonymi Fab. Lingelsheim, 1916a.

E. Europaeus L. European Spindle Tree.

Aphis euonymi Fab. Buckton, 2, p. 72.

E. Maaki.

Aphis rumicis Linn. (?aquilegiae nigra Kittel) (atriplicis Fab-
ricius) (armata Hausmann) (aparines Schrank) (dahliae Mos-
ley) (evonymi Fabricius) (papaveris Fabricius) (?solani Kit-
tel) (thlaspeos Schrank). Schouteden, 1906a, p. 227.

E. verrucosa.

Aphis evonymi Fab. Lingelsheim, 1916a.

STAPHYLEACEAE. BLADDER NUT FAMILY.

STAPHYLEA. Bladder Nut.

S. pinnata L.

Amphorophora ampullata Buckton. (*Rhopalosiphum staphyleae* Koch?) Buckton, 1, p. 187.

Rhopalosiphum staphyleae Koch. Koch, p. 33. van der Goot, 1915, p. 151.

ACERACEAE. MAPLE FAMILY.

ACER. (Negundo.) Maple.

A. campestre L.

Chaitophorinella lyropicta Kessler. van der Goot, 1915a, p. 373.

Chaitophorus aceris (Linn.) Koch. (*Puceron de l'Erable* Reaum.) Buckton, 2, p. 126. Passerini, 1863, p. 59.

Chaitophorus granulatus Koch. Buckton, 2, p. 140.

Drepanosiphum acerinum Walker. (*aceris* Koch). van der Goot, 1915, p. 282.

Drepanosiphum (Aphis) platanoides Schrank. van der Goot, 1915a, p. 285.

Lachnus longirostris Fab? Passerini, 1860, p. 38.

Lachnus longirostris Fab. Kaltenbach, 1874, p. 92.

Lachnus longirostris Pass. Kaltenbach, 1874, p. 562.

Phyllophora testudinacea Fernie. Fernie, 1852, p. 265.

Siphonophora (Drepanosiphum) aceris Koch. Ferrari, 1872, p. 53.

Stomaphis macrorhyncha Cholodkovsky. Mordwilko, 1899, p. 411.

A. circinnatum Pursh.

Chaitophorus americanus Baker. Baker, 1917f, p. 428.

Chaitophorus sp. (not *negundinis* and not *aceris*). Gillette, 1909a, p. 388.

A. japonicum.

Chaitophorus aceris L. Matsumura, 1917a, p. 354.

A. miyabei.

Chaitophorus aceris L. Matsumura, 1917a, p. 354.

A. Negundo (Moench) Koehne. (*Negundo aceroides*) (*Rulac negundo*). Box Elder.

Chaitophorus negundinis Thomas. Bragg, 1907, p. 431. Gillette, 1909a, p. 387.

Drepanosiphum braggii Gillette. Gillette, 1907a, p. 393.

Macrosiphum n. sp. Sanborn. Sanborn, 1904, p. 73.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 35.

A. palmatum.

Chaitophorus aceris L. Matsumura, 1917a, p. 354.

Siphocoryne accricola Matsumura. Matsumura, 1917a, p. 359.

A. pennsylvanicum L. Striped Maple. Moosewood.

Chaitophorus aceris (Linn.) Hunter, 1901, p. 86.

A. platanoides L. Norway Maple.

- Chaitophorinella lyropicta* Kessler: van der Goot, 1915a, p. 373.
Chaitophorus aceris (Fab.) Koch. Passerini, 1863, p. 59.
Chaitophorus aceris (Linn.) Koch (Puceron de l'Erable Reaum.).
 Buckton, 2, p. 126.
Chaitophorus coracinus Koch. Koch, p. 2.
Chaitophorus lyropicta Kessler (aceris of most American authors)
 Baker, 1917f, p. 428.
Drepanaphis acerifolii (Thomas). Essig, 1917a, p. 322.
Drepanosiphum platanoides Schrank (Siphonophora *platanoides*
 Pass.) van der Goot, 1915, p. 283.

A. Pseudo-Platanus L.

- Aphis acericola* Walker. Kaltenbach, 1874, p. 91.
Aphis acerina Walker. Kaltenbach, 1874, p. 91.
Aphis platanoides Schrank. Kaltenbach, 1874, p. 91.
Chaitophorinella aceris Koch. (*Aphis aceris* Linn. pr. p.). van
 der Goot, 1915a, p. 371.
Chaitophorus coracinus Koch. Schouteden, 1906a, p. 213.
Drepanosiphum acerina (Walker). (*D. aceris* Koch). Buckton, 1,
 p. 186.
Drepanosiphum platanoides (Schrank) Koch. Buckton, 1, p. 183.
Myzus gracilis Buckton. Buckton, 1, p. 177.
Phyllophora testudinacea Fernie. Fernie, 1852, p. 265.
Siphonophora aceris Koch. (*S. aceris* Ferrari). Macchiati, 1883.

A. saccharinum L. *Acer dasycarpum* Ehrh. (eriocarpum). White or Silver Maple.

- Drepanosiphum* (*Siphonophora*) *acerifoliae* Thomas. Thomas,
 1879, p. 47.
Lachnus longistigma Monell. Sanborn, 1904, p. 31.
Longistigma (*Lachnus*) *caryac* (Harris). Wilson, 1909c, p. 385.
Melanoxanthus salicti Harris. Williams, 1891, p. 17.
Pemphigus aceris Monell. Hunter, 1901, p. 77.
Pemphigus stamineus Haldeman. Hunter, 1901, p. 79.
Pemphigus tessellata (*acerifolii* Riley). Patch, 1908, p. 484.

A. saccharum Marsh. Sugar or Rock Maple.

- Chaitophorus americanus* Baker. Baker, 1917f, p. 429.
Drepanaphis? *minutus* Davis. Davis, 1910a, p. 195.
Pemphigus aceris Monell. Williams, 1891, p. 17.

A. sp.

- Aphis perforata* Signoret. Lichtenstein, La Flore.
Aphis platanoides Hartig. Hartig, 1841, p. 369.
Aphis villosus Hartig. Hartig, 1841, p. 369.
Chaitophorinella testudinata Thornton. (*Aphis aceris* Linn. pr.
 p.) (*Chaitophorus aceris* Koch pr. p.) (*Periphyllus testudo*
 Thornton). van der Goot, 1915, p. 377.
Chaitophorus aceris L. (*Chelymorpha phyllophora* Clark). Kirk-
 aldy, 1905, p. 417.

- Chaitophorus lyropictus* Kessler. Mordwilko, 1899, p. 414.
Chaitophorus testudinatus (Thorn.). Oestlund, 1908, p. 131.
Chaitophorus versicolor Koch. Theobald, 1911-12.
Drepanosiphum platanoides Schrank. Wilson, 1909b, p. 349.
Euceraphis betulae (Koch). (*Aphis cerasicolens* Fitch?). Baker, 1917f, p. 425.
Pemphigus aceris Monell. Jackson, 1908, p. 214.
Periphyllus testudo van der Hoeven. Zoological Record, 1870, p. 472.
Stomaphis graffii Chol. Cholodkovsky, 1894 (1895), p. 405. "Auf ahornwurzeln."

RULAC.

- R. negundo.** See *Acer negundo* L.

SAPINDACEAE. SOAPBERRY FAMILY.

AESCULUS. Horse-chestnut.

- A. glabra** Willd. Fetid or Ohio Buckeye.
Drepanaphis monelli (Davis). Gillette, 1910, p. 371.
Phymatosiphum monelli Davis. Davis, 1909c, p. 197.
A. parviflora Walt.
Chaitophorus aceris (Linn.) Koch. Buckton, 2, p. 126.

MELIANTHUS.

- M. major** (L).
Rhopalosiphum persicae (Sulzer). Essig, 1917a, p. 332.

BALSAMINACEAE. TOUCH-ME-NOT FAMILY.

IMPATIENS. Balsam.

- I. biflora** Walt. (fulva). Spotted Touch-me-not.
Aphis impatiensis Thomas. Thomas, 1879, p. 98.
Nectarophora fulvae Oestlund. Oestlund, 1887, p. 80.
Siphonophora carnosa var. *impatiens* Williams. Williams, 1910 (1911), p. 74.
I. noli-tangere L.
Aphis balsamincs Kalt. Kaltenbach, 1874, p. 84.
I. pallida Nutt. (aurea Muhl.) Pale Touch-me-not.
Aphis impatiensis Thomas. Williams, 1891, p. 25.
Siphonophora carnosa var. *impatiens* Williams. Williams, 1910 (1911), p. 74.
Siphonophora fulvae Oestlund. Williams, 1891, p. 25.

RHAMNACEAE. BUCKTHORN FAMILY.

CEANOTHUS. Red-root.

C. cuneatus Nutt.*Aphis ceanothi* Clarke. Davidson, 1909, p. 302.**C. hirsutus** Nutt.*Aphis ceanothi-hirsuti* Essig. Essig, 1911b.**C. integerrimus** Hook.*Aphis ceanothi* Clarke. Clarke, 1903, p. 251.**C. thrysiflorus** Esch.*Aphis ceanothi* Clarke. (*A. ceanothi-hirsuti* Essig). Essig, 1917a, p. 338.

NOLTEA.

N. africana Reichb. Soapbush.*Aphis ceanothi* Clarke. (*A. ceanothi-hirsuti* Essig). Essig, 1917a, p. 338.

PALIURUS.

P. sp.*Aphis paliuri* Licht. (ined.) Lichtenstein, La Flore.

RHAMNUS. Buckthorn.

R. Alaternus L.*Aphis frangulae* Koch. (*rhamni* Kalt.) Macchiati, 1883, p. 240.*Myzus rhamni* Koyer. Macchiati, 1883, p. 236.*Toxoptera alaterna* Del Guercio. Phillips and Davis, 1912, p. 8.*Toxoptera variegata* Del Guercio. Phillips and Davis, 1912, p. 8.**R. alpina** L.*Aphis frangulae* Kalt. (*rhamni* Kalt.). Kaltenbach, 1874, p. 101.**R. californica** Esch. Coffee Berry.*Nectarophora rhamni* Clarke. Clarke, 1903, p. 254.**R. Frangula** L.*Aphis frangulae* Kalt. (*rhamni* Kalt.). Kaltenbach, 1874, p. 101.

Koch, pp. 120, 142.

Aphis frangulae Koch. (*rhamni* Kalt.). Macchiati, 1883, p. 240.**R. lanceolata** Pursh.*Aphis frangulae* Kalt. Williams, 1891, p. 7.**R. Purshiana**. Cascara sagrada.*Aphis gossypii* Glover. Essig, 1917a, p. 338.*Myzus rhamni* Boyer. (*Macrosiphum rhamni* Clarke). Wilson, 1912a, p. 156.**R. sp.***Aphis rhamni* Schrank. Lichtenstein, La Flore.*Myzus rhamni* Boyer. Lichtenstein, La Flore.

ZIZYPHUS.

Z. Jujuba Lam.

Rhizobius jujubae Buckton. Buckton, 1899b, p. 278. Kirkaldy, 1906, p. 16. "is a Coccid."

VITACEAE. VINE FAMILY.

AMPELOPSIS.

A. quinquefolia. See Psedera.

PARTHENOCISSA.

P. quinquefolia. See Psedera.

PSEDERA. Virginia Creeper. Woodbine.

P. quinquefolia (L.) Greene. (*Ampelopsis quinquefolia*) (*Parthenocissa quinquefolia*).

Aphis folsomii Davis. (*parthenocissa* Williams). Davis, 1911, p. 17.

Aphis setariae Thomas. Gillette and Taylor, 1908, p. 42.

VITIS. Grape.

V. californica Benth.

Phylloxera pemphigoides Donnadieu. Rathay, 1889, p. 67.

V. cordifolia Michx. Frost or Chicken Grape.

Aphis ripariae Oestlund. Williams, 1891, p. 12.

Phylloxera vastatrix Planchon. Williams, 1891, p. 12.

Siphonophora viticola Thomas. Williams, 1891, p. 12.

V. vinifera L

Aphis vitis Scopoli. Kaltenbach, 1874, p. 95.

Hyalopterus pruni (Fab.) Koch (*Prunifex* Amyot). Buckton, 2, p. 111.

Hyalopterus pruni (Fab.) Koch (*Walker partim*). Passerini, 1863, p. 27.

Peritymbia (*Phylloxera*) *vitifolii* (Fitch-Riley) (*vastatrix* Planchon). Börner, 1909b, p. 61.

Phylloxera vastatrix Planchon. Kaltenbach, 1874, p. 775.

Rhizoctonus ampelinus Mokrzecky. Mordwilko, 1909, p. 159. Mokrzecky, 1895-96 (1897), p. 438.

Schizoneura ampelorrhiza Del Guercio. Del Guercio, 1900, p. 104.

V. vulpina L. (riparia Michx.). River-bank or Frost Grape.

Aphis ripariae Oestlund. Oestlund, 1887, p. 63.

Phylloxera pemphigoides Donnadieu. Rathay, 1889, p. 66.

V. sp.

Aphis ripariae Oestlund? (?*vitis* Scopoli). Gillette, 1910, p. 404.

Aphis vitis Scopoli. Sanborn, 1904, p. 56.

Macrosiphum illinoensis (Shimer) (*Aphis*) (*viticola* Thomas). Davis, 1910, Jour. Ec. Ent., p. 486.

- Phylloxera vastatrix* Planch. (*Peritymbia vitisana* Westwood).
Lichtenstein, La Flore.
Xerampelus vastator Del Guercio. (*Rhizaphis vastatrix* Planchon).
Del Guercio, 1909, p. 80.

TILIACEAE. LINDEN FAMILY.

TILIA. Linden.

T. americana L. Basswood.

- Eucallipterus tiliae* (Linn.). Gillette, 1910, p. 367.
Longistigma caryae (Harris) Wilson (*Lachnus longistigma* Monell). (*L. platanicola* Riley). Wilson, 1909a, p. 385.
Macrosiphum tiliae (Monell). Davis, 1914, Can. Ent. Vol. 46, p. 83.
Pterocallis tiliae (Linn.). Pass. Buckton, 3, p. 36.

T. grandifolia.

- Drepanosiphum tiliae* Koch. Koch, p. 204.
Pterocallis tiliae (Linn.) Pass. Buckton, 3, p. 36.

T. Europea L.

- Pterocallis tiliae* Auct. (*Aphis*) Kalt. Ferrari, 1872, p. 77.
Schizoneura reaumuri Kalt. Kaltenbach, 1843, p. 176.

T. platyphyllos Scop.

- Drepanosiphum (Aphis) tiliae* Koch. Kaltenbach, 1874, pp. 79, 561.
Pterocallis tiliae (Linn.) Pass. Buckton, 3, p. 36.

T. rubra D. C.

- Aphis adducta* Walker. Walker, 1849c, p. 34.
Pterocallis tiliae (Linn.) Pass. Buckton, 3, p. 36.

T. tomentosa Moench. Silver Linden.

- Eucallipterus tiliae* (Linn.). Essig, 1917a, p. 323.

T. sp.

- Callipterus (Eucallipterus) tiliae* (Linn.). Davis, 1909a, p. 33.
Pachypappa reaumuri Kaltenbach. Theobald, 1915a. "on lime."
Siphonophora tiliae Monell. (*Drepanosiphum tiliae* Koch?). Thomas, 1879, p. 188.

MALVACEAE. MALLOW FAMILY.

ALTHAEA. Marsh Mallow.

A. narbonnensis Pourr.

- Aphis malvae* Koch. Passerini, 1863, p. 36.
Siphonophora malvae (Mosley) Pass. (*A. pelargonii* Kalt.) (*A. pallida* Walker) (*S. pelargonii* Koch) (*S. diplantherae* Koch).
Passerini, 1863, p. 14.

A. officinalis L. Marsh Mallow.

- Aphis malvae* Koch. Passerini, 1863, p. 36.
Aphis urticaria Kalt. Kaltenbach, 1874, p. 70.
Siphonophora artemisiae Boyer.

Siphonophora kochii Ferrari. (*S. artemisiae* Koch, p. 165). Del Guercio, 1900, p. 168.

A. rosea Cav. Hollyhock.

Aphis malvae Koch. Passerini, 1863, p. 36.

Macrosiphum solanifolii (Ashmead). Houser, 1917a, p. 69.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

Siphonophora malvae (Mosley) Pass. (*A. pelargonii* Kalt.) (*A. pallida* Walker) (*S. diplantherae* Koch). Passerini, 1863, p. 14.

A. sp.

Aphis cucumeris Forbes. Williams, 1891, p. 15.

GOSSYPIMUM.

G. herbaceum L. Cotton.

Acyrtosiphon gossypii gossypii Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 173.

Aphis gossypii Glover. (*citrifolii* Ashmead, in part) (*citrulli* Ashmead) (*cucumeris* Forbes) (*forbesi* Weed?). Pergande, 1895, p. 314.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 35.

G. sp.

Acyrtosiphon gossypii gossypii Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 173.

Aphis malvae Koch. Lichtenstein, La Flore.

Aphis medicaginis Koch. Lichtenstein, La Flore.

Aphis plantaginis Schrank. Lichtenstein, La Flore.

HIBISCUS. Rose Mallow.

H. rosasinensis L.

Aphis gossypii Glover. Fullaway, 1909, p. 40.

H. sp.

Aphis malvae Walker. Williams, 1891, p. 14.

Aphis medicaginis Koch. Macchiati, 1883, p. 255.

Rhopalosiphum dianthi (Schrank). Williams, 1891, p. 14.

LAVATERA.

L. arborea L.

Aphis malvae Koch. Ferrari, 1872, p. 64.

L. assurgentiflora Kellogg.

Rhopalosiphum persicae (Sulzer). Essig, 1917a, p. 331.

L. trimestris L.

Aphis malvae Koch. Passerini, Flora.

MALOPE.

M. trimestri.

Aphis malvae Koch. Passerini, 1863, p. 36.

MALVA. Mallow.

M. moschata L. Musk Mallow.

Siphonophora urtica Koch. (Aphis Schrank). Passerini, 1863, p. 14.

M. parviflora L.

Aphis malvae Koch. Del Guercio, 1909 (1910), Redia VII, p. 298.

Myzus achyrantes Monell. Davidson, 1909, p. 303.

Myzus persicae (Sulzer). Essig, 1911c, p. 600.

M. rotundifolia L. Common Mallow. Cheeses. (neglecta).

Acyrtosiphon skrjabini Mordwilko. Mordwilko, 1914, Faune de la Russie, p. 181.

Aphis cardui Linn. Kaltenbach, 1874, p. 381.

Aphis gossypii Glover. (citrifolii Ashm., in part) (citrulli Ashm.) (cucumeris Forbes) (forbesi Weed?). Pergande, 1895, p. 314.

Aphis malvae Koch. Theobald, 1911-12.

Aphis urticae Fab. Bayer, 1914a, p. 111.

Aphis urticaria Kalt. Kaltenbach, 1874, p. 69.

Chaitophorus sp. Gillette, 1909a, p. 388.

Myzus achyrantes (Monell). Williams, 1891, p. 17.

M. sylvestris L. High Mallow.

Aphis addita Walker. Walker, 1849c, p. 33.

Aphis cardui Linn. (A. onopordi Schrank). Kaltenbach, 1843, p. 115.

Aphis malvae Koch. Passerini, 1863, p. 36.

Aphis urticae Fab. Bayer, 1914a, p. 111.

Siphonophora pelargonii (Kalt.) Koch (pallida Walker) (fragariae Walker?) (diplantherae Koch?) (malvae Pass.). Buckton, 1, p. 137.

Siphonophora urticae (Kalt.) Koch. Buckton, 1, p. 144.

M. sp.

Aphis eupatorii Passerini. Del Guercio, 1909 (1910), Redia VII, p. 297.

Aphis gossypii Glover. (malvae Koch) (cucubiti Buckton). van der Goot, 1915, p. 198.

Aphis malvae Mosley. Lichtenstein, La Flore.

Aphis malvae Koch. Ferrari, 1872, p. 64.

Aphis malvae Walker. Buckton, 2, p. 43.

Macrosiphum diplantherae Koch. Theobald, 1913, p. 54.

Macrosiphum malvae (Mosley). Theobald, 1913, p. 150.

Macrosiphum malvicola Matsumura. Matsumura, 1917a, p. 359.

Macrosiphum pelargonii Buckton. Theobald, 1913, p. 54.

Myzus persicae Sulzer. (achyrantes Monell?) (malvae Oestlund?). Gillette and Taylor, 1908, p. 137.

Siphocoryne alboapicalis Theobald. Theobald, 1916f, p. 183.

MALVASTRUM. False Mallow.

M. coccineum. A. Gray. Red False Mallow.

Myzus circumflexum (Buckton) (vincae Gillette). Davis, 1914, p. 122. Can. Ent.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

STERCULIACEAE.

THEROBROMA.

T. Cacao L.

Toxoptera theobromae Schouteden. Schouteden, 1906b, p. 38 (2).

TERNSTROEMIACEAE. TEA OR CAMELLIA FAMILY.

CAMELLIA.

C. drupifera (oleifera).

Toxoptera aurantii Boyer. (Aphis) (*A. camelliae* Kalt.). Ferrari, 1872, p. 62.

C. japonica.

Toxoptera aurantii Boyer. (Aphis) (*A. camelliae* Kalt.). Ferrari, 1872, p. 62. Essig, 1917a, p. 330.

C. Thea Link.

Ceylonia theaeicola Buckton. Experiment Station Record, 1903-4, (1904), p. 277.

C. sp.

Toxoptera aurantii Boyer. (*T. camelliae* Kaltenbach) (*Ceylonia theaeicola* Buckton). Phillips and Davis, 1912, p. 8.

HYPERICACEAE. SAINT JOHN'S-WORT FAMILY.

HYPERICUM. Saint John's-wort.

H. crispum L.

Aphis chloris Koch. Macchiati, 1883, p. 239.

H. hirsutum L.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

Aphis rumicis Linn. Walker, 1850a, p. 19.

H. kalmianum L. Kalm's Saint John's-wort.

Aphis hyperici Monell. Monell, 1879, p. 25.

H. perforatum L. Common Saint John's-wort.

Aphis chloris Koch. Ferrari, 1872, p. 65.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

Aphis rumicis Linn. Walker, 1850a, p. 19.

H. prolificum L. Shrubby Saint John's-wort.

Myzocallis hyperici Thomas. Thomas, 1879, p. 109.

H. quadrangulum L.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

Aphis rumicis Linn. Walker, 1850a, p. 19.

H. Sarothra Michx. (gentianoides).

Aphis maidi-radici Forbes. Vickery, 1910, p. 103.

TAMARICACEAE.

TAMARIX.

T. sp.

Aphis rumicis L. (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistae* Scopoli). van der Goot, 1915, p. 225.

Aphis tamaricis Licht. Lichtenstein, 1885a, p. CLXXIX.

CISTACEAE. ROCKROSE FAMILY.

CISTUS.

C. crispus L.

Aphis cisti Lichtenstein. Del Guercio, 1909 (1910), Redia VII, p. 297.

C. hirsutus.

Aphis cisti Lichtenstein. Del Guercio, 1909 (1910), Redia VII, p. 297.

C. sp.

Aphis cisti Licht. (ined.). Lichtenstein, La Flore.

Myzus targonii Del Guercio. (M. ribis? Linn., Ferrari). Del Guercio, 1900, p. 152.

HELIANTHEMUM. Rockrose.

H. vulgare Gaertn. Fruct.

Aphis helianthemii Ferrari. Ferrari, 1872, p. 65.

VIOLACEAE. VIOLET FAMILY.

VIOLA. Violet.

V. nuttallii.

Myzus circumflexum (Buckton) (vincae Gillette). Davis, 1914, p. 122. Can. Ent.

V. odorata L. English or Sweet Violet.

Siphonophora malvae (Mosley) Pass. (A. pelargonii Kalt.) (A. pallida Walker) (S. pelargonii Koch) (S. diplantherae Koch). Passerini, 1863, p. 14.

V. tricolor L. Pansy. Heart's-ease.

Aphis certa Walker. Walker, 1849c, p. 32.

Aphis insessa Walker. Walker, 1849c, p. 32.

Aphis violae Scouteden. Schouteden, 1906a, p. 229.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

Siphonophora malvae Mosley. (A. pelargonii Koch) (A. pallida Walker) (S. pelargonii Koch) (S. diplantherae). Macchiati, 1883, p. 230.

V. sp.

Idiopterus nephrolepidis Davis. Essig, 1911b, p. 541.

Rhopalosiphum tulipaella Theobald. Theobald, 1916f, p. 148.

Rhopalosiphum violae Pergande. Pergande, 1900b, p. 29. Sanborn, 1904, p. 65.

LOASACEAE. LOASA FAMILY.

MENTZELIA.

M. nuda Pursh.

Nectarophora sp. Cowen. Cowen, 1895, p. 125.

M. sp.

Macrosiphum mentzeliae Wilson. Wilson, 1915b, p. 99.

BEGONIACEAE.

BEGONIA.

B. sp.

Aphis gossypii Glover. (citrifolii Ashm., in part) (citrulli Ashm.)
(cucumeris Forbes) (forbesi Weed?). Pergande, 1895, p. 314.

Aphis opima Buckton. Theobald, 1911-12.

Macrosiphum begoniae Schouteden. Schouteden, 1901, p. 117.
1906a, p. 238.

CACTACEAE. CACTUS FAMILY.

CACTUS.

C. sp.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

OPUNTIA. Prickly Pear.

O. vulgaris Mill.

Aphis papaveris Fab. Macchiati, 1883, p. 256.

O. sp.

Myzus persicae Sulzer. Gillette and Taylor, 1908, p. 36.

THYMELAEACEAE. MEZEREUM FAMILY.

DAPHNE. Mezereum.

D. sp.

Macrosiphum hibernaculorum (Boyer). Theobald, 1916f.

Siphonophora gnidii Licht. (ined.). Lichtenstein, La Flore.

PIMILEA.

P. sylvatica.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

ELAEAGNACEAE. OLEASTER FAMILY.

ELAEAGNUS.

E. angustifolia L.

Rhopalosiphum hippophaes (Myzus elaeagni Del Guercio, Davis,
1908) Gillette, 1915, Jour. Ec. Ent. Vol. 8, p. 376.

E. argentea Pursh. Silver-berry.

Capitophorus (Myzus) *braggii* Gillette. van der Goot, 1915, p. 120.

E. sp.

Myzus braggii Gillette. Gillette, 1915, Jour. Ec. Ent. Vol. 8, p. 376.

HIPPOPHAE.

H. rhamnoides L.

Myzus braggii Gillette. Gillette, 1915, Jour. Ec. Ent. Vol. 8, p. 376.

Rhopalosiphum hippophaes Koch. Gillette, 1915, Jour. Ec. Ent. Vol. 8, p. 376.

SHEPHERDIA.

S. argentea Nutt.

Capitophorus shepherdiae G. and B. Gillette and Bragg, 1916, p. 445.

S. arvensis.

Myzus braggii Gillette. Gillette, 1915, Jour. Ec. Ent. Vol. 8, p. 376.

LYTHRACEAE. LOOSESTRIFE FAMILY.

AMMANNIA.

A. sp.

Rhopalosiphum nymphaeae (Linn.). Williams, 1891, p. 5.

CUPHEA. (Parsonsia).

C. Bustamanta Lex. (platycentra).

Aphis malvae Walker. Williams, 1891, p. 8.

C. ignea DC. (Parsonia platycentra).

Aphis malvae Walker. Hunter, 1901, p. 127.

C. sp.

Aphis gossypii Glover. Fullaway, 1909, p. 40.

Siphonophora malvae (Mosley) Pass. (*A. pelargonii* Kalt.) (*A. pallida* Walker) (*S. pelargonii* Koch) (*S. diplantherae* Koch). Passerini, 1863, p. 14.

LAGERSTROEMIA.

L. indica L.

Myzocallis kahawaluokalani Kirkaldy. Fullaway, 1909, p. 43.

L. sp.

Aphis lagerstroemiae Licht. (ined.). Lichtenstein, La Flore.

LYTHRUM. Loosestrife.

L. Salicaria L. Spiked Loosestrife.

Aphis lythri Schrank. Kaltenbach, 1874, p. 254. Theobald, 1911-12.

Aphis salicariae Koch. Kaltenbach, 1874, p. 254.

Myzaphis lythri Schrank. van der Goot, 1915, p. 185.

PUMICA.

P. Granatum L.

Aphis punicae Pass. Ferrari, 1872, p. 69.

MYRTACEAE.

MYRTUS.

M. sp.

Aphis dianthi Schrank. Walker, 1850a, p. 394.

Rhopalosiphum persicae Sulzer. Lichtenstein, Flore Supplement.

ONAGRACEAE. EVENING PRIMROSE FAMILY.

CLARKIA.

C. elegans Dougl.

Rhopalosiphum persicae (Sulzer). Essig, 1917a, p. 331.

EPILOBIUM. Willow-herb.

E. adenocaulon occidentale Trelease.

Aphis oenotherae Oestlund. Essig, 1917a, p. 341.

E. angustifolium L. (spicatum Lam.) Great Willow-herb. Fireweed.

Aphis epilobii Kalt. Cockerell, 1903b, p. 114.

Nectarophora sp. Cowen. Cowen, 1895, p. 124.

E. Dodonaei.

Aphis plantaginis Schrank. (*A. dauci* Fab.). Passerini, 1863, p. 40.

E. hirsutum L.

Aphis epilobii Koch. Theobald, 1911-12.

E. montanum L. (pubescens).

Aphis epilobii Kalt. Buckton, 2, p. 71.

Aphis instabilis Buckton. Buckton, 2, p. 95.

Aphis penicillata Buckton, 2, p. 52.

Macrosiphum ulmariae (Schrank) (gei Koch) (*urticae* Kalt?)
van der Goot, 1915, p. 104.

Siphonophora ulmariae (Schrank, Walker) (*onobrychis* Boyer)
(pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

E. parviflorum Schreb.

Aphis epilobii Koch. Theobald, 1911-12.

Aphis instabilis Buckton. Buckton, 2, p. 95.

E. virgatum Cunn.

Aphis virgata Del Guercio. Del Guercio, 1909 (1910), Redia VII,
p. 297.

E. sp.

Anuraphis myosotidis Koch. Del Guercio, 1909 (1910), Redia VII,
p. 297.

Aphis despecta Walker. Walker, 1849c, p. 53.

Aphis diphaga Walker. Walker, 1852, p. 1042.

Aphis epilobiina Walker. Walker, 1849c, p. 53.

Aphis malvae Walker. Buckton, 2, p. 43.

Aphis oenotherae Oestlund. Clarke, 1903, p. 252.

Aphis pollinosa Walker. Walker, 1849c, p. 52.

Aphis praeterita Walker. Walker, 1849c, p. 52.

Aphis tinctoria Walker. Walker, 1849c, p. 51.

Aphis triphaga Walker. Walker, 1852, p. 1041.

Nectarophora epilobii Pergande. Pergande, 1900a, p. 516.

FUCHSIA.

F. coccinea Ait.

Aphis dianthi Schrank. Kaltenbach, 1874, p. 48.

F. globosa Lindl.*Aphis dianthi* Schrank. Kaltenbach, 1874, p. 48.**F. gracilis.***Rhopalosiphum dianthi* (Schrank) Koch (persicae, Puceron du pecher Morren) (rapae Curtis) (floris-rapae Curtis) (dubia? Curtis) (vastator Smee) (*A. persicaecola* Boisduval) (*Rh. persicae* Pass.). Buckton, 2, p. 17.**F. macrantha** Hook.*Aphis dianthi* Schrank. Kaltenbach, 1874, p. 48.**GUARA.****G. parviflora** Doughl.*Nectarophora* sp. Cowen. Cowen, 1895, p. 124.*Siphonophora gaurae* Williams. Williams, 1910 (1911), p. 80.*Siphonophora gaurina* Williams. Williams, 1910 (1911), p. 80.**OENOTHERA.** Evening Primrose.**O. bectiana.***Aphis oenotherae* Oestlund. Clarke, 1903, p. 252.**O. biennis** L.*Aphis gossypii* Glover. Sanborn, 1904, p. 57.*Aphis oenotherae* Oestlund. Cowen, 1895, p. 121.*Myzus biennis* Sanborn. Sanborn, 1904, p. 78.*Myzus oenotherae* Williams. Williams, 1910 (1911), p. 65.*Pemphigus oenotherae* Williams. Williams, 1891, p. 11.*Siphonophora* sp. Williams, 1891, p. 11.**O. caespitosa** Nutt.*Aphis oenotherae* Oestlund. Cowen, 1895, p. 121.**O. grandiflora** Ait.*Aphis oenotherae* Oestlund. Essig, 1917a, p. 341.**O. serrulata** Nutt.*Aphis oenotherae* Oestlund. Williams, 1891, p. 11.**O. sp.***Anoecia oenotherae* Wilson. Wilson, 1911, p. 64.*Anoecia querci* (Fitch) (*Eriosoma querci* Fitch) (*Rhizobius eleusinis* Thos.) (*Schizoneura panicola* Thos.) (*Anoecia corni* American authors) (?*Anoecia oenotherae* Wilson). Baker, 1916, p. 363.**TRAPA.** Water Nut.**T. natans** L. Water Chestnut.*Rhopalosiphum nymphaeae* Koch. Passerini, Flora.**HALORAGIDACEAE.** WATER MILFOIL FAMILY.**MYRIOPHYLLUM.** Water Milfoil.**M. verticillatum** L.*Rhopalosiphum nymphaeae* Linn. (*Aphis aquaticus* Jackson). Davis, 1910a, p. 245.

ARALIACEAE. GINSENG FAMILY.

ACANTHOPANAX.

A. *ricinifolium*.

Aphis acanthopanaci Matsumura. Matsumura, 1917a, p. 356.

ARALIA.

A. *cordata*.

Arimakia araliae Matsumura. Matsumura, 1917a, p. 363.

A. *hispida* Vent. Bristly Sarsaparilla. Wild Elder.

Aphis (Adactynus) aralia-hispida Raf. Rafinesque, 1817.

A. *sinensis*.

Arimakia araliae Matsumura. Matsumura, 1917a, p. 363.

Arimakia taranbonis Matsumura. Matsumura, 1917a, p. 363.

HEDERA.

H. *Helix* L. English Ivy.

Aphis hederæ Kalt? Essig, 1917a, p. 339.

Aphis hederæ Kalt. Buckton, 2, p. 75.

?*Aphis lychnidis* Linn. Buckton, 2, p. 74.

Aphis rumicis Linn. (*fabæ* Kirby) (*genistæ* Scop.) (*ulicis* Fab?)
(*euphorbiæ* Kalt?) (*dahliae* Mosley) (*Cinara rumicis* Mosley)
(*Rumicifex* Amyot) (*Genistifex* Amyot). Buckton, 2, p. 84.

Myzus persicæ (Sulzer). Essig, 1911c, p. 600.

Pemphigus hederæ Horvath.

UMBELLIFERAE. PARSLEY FAMILY.

AEGOPODIUM. Goutweed.

A. *Podagraria* L.

Aphis caprææ Fab. (*A. aegopodii* Scopoli). Kaltenbach, 1843, p. 110.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

Siphocoryne caprææ (Fab.) Theobald, 1912. Rept. Ec. Zool. p. 88.

A. *sp.*

Aphis rumicis Linn. Walker, 1850a, p. 19.

AETHUSA. Fool's Parsley.

A. *Cynapium* L.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

A. *sp.*

Aphis rumicis Linn. Walker, 1850a, p. 19.

ANGELICA.

A. *sylvestris* L.

Aphis angelicæ Koch. Koch, p. 52.

Aphis capreae Fab. (*A. aegopodii* Scopoli). Kaltenbach, 1843, p. 110.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Cavariella giglioli Del Guercio. Del Guercio, 1909 (1910), Redia VII, p. 298.

Siphocoryne angelicae Del Guercio. Del Guercio, 1909 (1910), Redia VII, p. 298.

A. tomentosa Wats.

Aphis cari Essig. Essig, 1917a, p. 320.

A. sp.

Aphis angelicae Koch. Wilson, 1909b, p. 348.

ANTHRISCUS. Chervil.

A. sylvestris Hoffm. (*Chaerophyllum sylvestre*).

Aphis pisi Kalt. Kaltenbach, 1874, p. 118.

Macrosiphum ulmariae Schrank (gei Koch) (*urticae* Kalt?). van der Goot, 1915, p. 104.

A. vulgaris Bernh.

Aphis anthrisci Kalt. Kaltenbach, 1843, p. 112.

A. sp.

Aphis papaveris Fab. Kaltenbach, 1874, p. 288.

Aphis rumicis (*evonymi* Fab.) (*papaveris* Fab.) (*atriplicis* Fab.) (*genistae* Scopoli). van der Goot, 1915, p. 225.

Siphonophora ulmariae Schrank. Lichtenstein, Flore Supplement.

APIUM.

A. graveolens L. Garden Celery.

Aphis inculta Walker. Walker, 1849c, p. 43.

Aphis lappae Koch. Passerini, 1863, p. 51. Theobald, 1911-12.

Myzus lycopersici Clarke. Davis, 1914, p. 134. Can. Ent.

Rhopalosiphum dianthi Schrank. G. C. Davis, 1893, p. 40.

Siphocoryne avenae (Fab.) (*mali* Fitch) (*prunifoliae* Fitch) (*avenae* Fitch) (*annuae* Oestlund) (*fitchii* Sanderson) (*Siphonophora avenae* Thos. in part). Pergande, 1904a, p. 8.

Siphocoryne pastinaceae Linn. Buckton, 2, p. 24.

Siphocoryne pastinaceae Linn. Cockerell, 1903b, p. 114.

ARCHANGELICA.

A. atropurpurea Hoffm.

Siphocoryne archangelicae Oestlund. Oestlund, 1887, p. 70.

A. sp.

Aphis archangelicae Scop. Lichtenstein, Flore Supplement.

CARUM. Caraway.

C. kelloggii Gray. Wild or Sweet Anise.

Aphis cari Essig. Essig, 1917a, p. 320.

Siphocoryne capreae (Fab.). Essig, 1917a, p. 342.

C. sp.

Siphocoryne capreae Fab. (aegopodii Scopoli) (umbellatorum Koch) (cicutae Koch). van der Goot, 1915, p. 163.

CAUCALIS. (Turgenia).**C. latifolia** L. (Turgenia latifolia L.).

Aphis papaveris Fab. (A. fabae Scop.) (A. aparines Schrank). Passerini, 1863, p. 46.

CHAEROPHYLLUM.**C. temulum** L.

Aphis capreae Fab. (aegopodii Scopoli). Kaltenbach, 1843, p. 110.

Aphis chaerophylli Koch. Koch, p. 80.

Aphis pisi Kalt. Kaltenbach, 1874, p. 118.

C. tuberosum.

Aphis chaerophylli Koch. Theobald, 1915b.

C. sp.

Siphocoryne capreae Fab. Lichtenstein, La Flore.

Siphonophora ulmariae (Schrank, Walker) (onobrychis Boyer) (pisi Kalt.) (pisi Koch) (gei Koch). Passerini, 1863, p. 13.

CICUTA. Water Hemlock.**C. maculata** L. Spotted Cowbane. Musquash Root. Beaver Poison.

Nectarophora sp. Osborn-Sirrinc. Hunter, 1901, p. 123.

C. virosa L.

Rhopalosiphum cicutae Koch. Koch, p. 24.

Rhopalosiphum nymphacae (Linn.) Koch (A. butomi Schrank) (R. najadum Koch). Passerini, 1863, p. 21.

CONIUM. Poison Hemlock.**C. maculatum** L.

Aphis capreae Fab. (cicutae Koch). Kaltenbach, 1874, pp. 291, 266.

Aphis capreae Fab. (A. aegopodii Scopoli). Kaltenbach, 1843, p. 110.

Aphis xylostei Schrank (lonicerae Boyer). Kaltenbach, 1874, p. 307.

Hyadaphis xylostei Schrank. (*Siphocoryne conii* Davidson). Davidson, 1914, Jour. Ec. Ent., Vol. 7, p. 134.

C. sp.

Siphocoryne foeniculi Pass. Lichtenstein, La Flore.

CRITHMUM.**C. maritimum** L.

Aphis crithmi Buckton. Buckton, 1886, p. 324.

CRYPTOTAENIA. Honewort.**C. Canadensis** DC. (*Chaerophyllum canadense*).

Aphis chenophyllum-canadense Raf. Rafinesque, 1817.

DAUCUS. (Orlaya). Carrot.

D. Carota L.

- Aphis assueta* Walker. Walker, 1849c, p. 49.
Aphis carotae Koch. Graells, 1887, p. 11.
Aphis dauci Fab. Graells, 1887, p. 11.
Aphis lappae Koch. Graells, 1887, p. 11.
Aphis papaveris Fab. Graells, 1887, p. 11.
Aphis papaveris Fab. (A. fabae Scop.) (A. aparines Schrank).
 Passerini, 1863, p. 46.
Aphis plantaginis Fab. Kaltenbach, 1874, p. 56.
Aphis plantaginis Schrank. (dauci Fab.). Ferrari, 1872, p. 66.
 Theobald, 1916f, p. 183.
Aphis plantaginis Schrank. Graells, 1887, p. 11.
Aphis rumicis Linn. Walker, 1850a, p. 19.
Aphis subterranea Walker. (A. carotae Koch). Buckton, 2, p. 38.
Aphis umbellatarum Kalt. Graells, 1887, p. 11.
Forda dauci Gureau. Graells, 1887, p. 11.
Siphocoryne capreae (Fab.) (not pastinaceae Koch). Theobald,
 1912, Rept. Ec. Zool., p. 88.
Siphocoryne foeniculi Pass. Graells, 1887, p. 11.
Siphocoryne pastinaceae Linn. Buckton, 2, p. 24.

D. foliosus Guss.

Aphis carotae Koch. Macchiati, 1883, p. 239.

D. sp.

- Aphis umbellatorum* Koch. Lichtenstein, La Flore.
Siphocoryne capreae Fab. (aegopodii Scop.) (umbellatorum Koch)
 (cicutae Koch). van der Goot, 1915, p. 163.

ERYNGIUM. Eryngo.

E. campestre L.

- Aphis dispar* Walker. Walker, 1848c, p. 2251.
Aphis diversa Walker. Walker, 1848c, p. 2251.
Aphis papaveris Fab. Macchiati, 1883, p. 256.
Aphis rumicis Linn. Walker, 1850a, p. 19.

FALCARIA.

F. vulgaris Bernh. (Sium falcatum).

Aphis sii Koch. Kaltenbach, 1874, p. 271.

FERULA.

F. sp.

- Myzus ferulaginis* Macchiati. Lichtenstein, Flore Supplement.
Vacuna ferulae Macchiati. Lichtenstein, Flore Supplement.

FOENICULUM. Fennel.

F. vulgare Mill. (officinale ALL.).

Aphis saliceti Kaltenbach. Patch, 1917a, p. 417.

Siphocoryne foeniculi Pass. Clarke, 1903, p. 252.

F. sp.

Aphis capreae Fab. (foeniculi Pass.) (cicutae Koch). Kaltenbach, 1874, p. 275.

HERACLEUM. Cow Parsnip.

H. lanatum Michx.

Aphis heracлии Cowen. Cowen, 1895, p. 120.

Aphis saliceti Kaltenbach. Patch, 1917a, p. 417.

H. mantegazzianum S&L.

Aphis heraclei Cowen. (not Koch). Essig, 1917a, p. 339.

H. Sphondylium L.

Aphis heraclei Koch. Koch, p. 51.

Aphis umbellatorum Koch. Theobald, 1911-12.

Hyalopterus spondylii Koch. Koch, p. 18.

Phorodon galeopsidis (Kalt.) Pass. (Walker ex parte). Passerini, 1863, p. 19.

Siphocoryne capreae (Fab.). Theobald, 1912, Rept. Ec. Zool., p. 88.

H. sp.

Siphocoryne capreae Fab. (aegopodii Scopoli) (umbellatorum Koch) (cicutae Koch). van der Goot, 1915, p. 163.

HYDROCOTYLE. Water Pennywort.

H. sp.

Aphis nymphacae L. Kaltenbach, 1874, p. 20.

LEVISTICUM. Lovage.

L. sp.

Aphis ligustici Fab. Kaltenbach, 1874, p. 278.

LIGUSTICUM. Lovage.

L. scoticum L. Scotch Lovage.

Aphis ligustici Fab. Kaltenbach, 1843, p. 140.

L. sp.

Nectarophora martini Cockerell. Cockerell, 1903a, p. 171.

MUSENIUM.

M. tenuifolium Nutt.

Aphis penstemonis Williams. Williams, 1910 (1911), p. 54. "Evidently this species."

OENANTHE. Phellandrium.

O. crocata L.

Aphis umbellatorum Koch. Theobald, 1911-12.

O. sp.

Aphis oenanthis Licht. (ined.). Lichtenstein, La Flore.

Aphis papaveris Fab. Kaltenbach, 1874, p. 275.

PASTINACA. Parsnip.**P. sativa L.**

Aphis capreae Fab. (*A. aegopodii* Scopoli). Kaltenbach, 1843, p. 110.

Aphis carotae Koch. Ferrari, 1872, p. 72.

Aphis cicutae Koch. (*capreae* Fab.). Kaltenbach, 1874, p. 266.

Aphis heraclii Cowen. Cowen, 1895, p. 120.

Aphis robusta Walker. Walker, 1849c, p. 43.

Aphis rumicis Linn. Walker, 1850a, p. 19.

Aphis saliceti Kaltenbach. Patch, 1917a, p. 417.

Rhopalosiphum pastinacae (L.). Koch. (*A. capreae* Fab.) (*R. cicutae* Koch). Koch, pp. 41-42.

Siphocoryne capreae (Fab.) (not *pastinaceae* Koch). Theobald, 1912, Rept. Ec. Zool., p. 88.

Siphocoryne foeniculi Pass. Passerini, 1860, p. 37.

P. sp.

Siphocoryne capreae Fab. (*aegopodii* Scopoli) (*umbellatorum* Koch) (*cicutae* Koch). van der Goot, 1915, p. 163.

PETROSELINUM. Parsley.**P. hortense Hoffm.** Common Parsley.

Rhopalosiphum capreae (Fab.) Gillette, 1911, p. 323.

PEUCEDANUM. (Anethum).**P. alsaticum L.** (Anethum).

Aphis papaveris Fab. (*A. fabae* Scop.) (*A. aparines* Schrank). Passerini, 1863, p. 46.

P. palustre Moench.

Aphis rumicis Linn. (*fabae* Kirby) (*genistae* Scop.) (*ulicis* Fab?) (*Euphorbiae* Kalt?) (*dahliae* Mosley) (*Cinara rumicis* Mosley) (*Rumicifex* Amyot) (*Genistifex* Amyot). Buckton, 2, p. 84.

P. sp.

Siphonophora capreae Fab. Lichtenstein, Flore Supplement.

PIMPINELLA.**P. magna L.**

Aphis anthrisci Kalt. Kaltenbach, 1874, p. 273.

Aphis pimpinellae Kalt. Kaltenbach, 1874, p. 273.

P. Saxifraga L.

Aphis anthrisci Kalt. Kaltenbach, 1874, p. 273.

Aphis pimpinellae Kalt. Kaltenbach, 1874, p. 273.

SANICULA. Sanicle.**S. canadensis L.**

Aphis saniculae Williams. Williams, 1910 (1911), p. 56.

SCANDIX. Venus' Comb.

S. Pecten-Veneris L.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

SESELI.

S. sp.

Aphis seselii Licht. (ined.). Lichtenstein, La Flore.

SIUM.

S. falcatum. See Falcaria vulgaris.

S. latifolium L.

Aphis rumicis Linn. Walker, 1850a, p. 19.

THASPIUM. Meadow Parsnip.

T. aurem Nutt.

Aphis thaspis Oestlund. Oestlund, 1887, p. 58.

TORDYLIUM.

T. apulum L.

Aphis carotae Koch. Macchiati, 1883, p. 239.

TORILIS.

T. Anthriscus (L). Bernh. (Caucalis Anthriscus).

Aphis anthrisci Kalt. Kaltenbach, 1874, p. 273.

Aphis papaveris Fab. Kaltenbach, 1874, p. 269.

UMBELLIFERAE.

U. sp.

Acyrtosiphon navozovi Mordwilko, 1914, Faune de la Russie, p. 196.

Siphocoryne pastinacae Koch (not capreae Fab.). Theobald, 1912, Rept. Ec. Zool., p. 89.

EXPLANATION OF FIGURES

Figure 4. Showing antennae, thoracic wax-plates and hind tarsi, all drawn to same scale.

Prociphilus corrugatus? Spring migrant from *Crataegus* (67-12, 50-04): *P. alnifoliae*? Spring migrant from *Amelanchier* (27-06, 40-06, 29-10, 16-11): *P. (Trama) crigeronensis*. Fall migrant from *Solidago* (78-06); Apterous female from cultivated aster. *P. sp.* Fall migrants found alighting at base of trunk of Mountain Ash, *Pyrus sp.* (164-12).

Figure 5. Showing antennae, thoracic wax-plates and hind tarsi, all drawn to same scale.

Prociphilus tessellata. Spring migrant from *Acer* (24-11); fall migrant from *Alnus* (120-16): *P. xylostei*, spring migrant from *Lonicera* (53-14, 96-16): *P. approximatus*, spring migrant from *Fraxinus* (1-16-21): *P. fraxinifolii*, spring migrant from *Fraxinus* (62-09): *P. venafuscus*, spring migrant from *Fraxinus* (55-06, 85-11); fall migrant (100-08).



FIGURE 4.

